

FIGURE 1

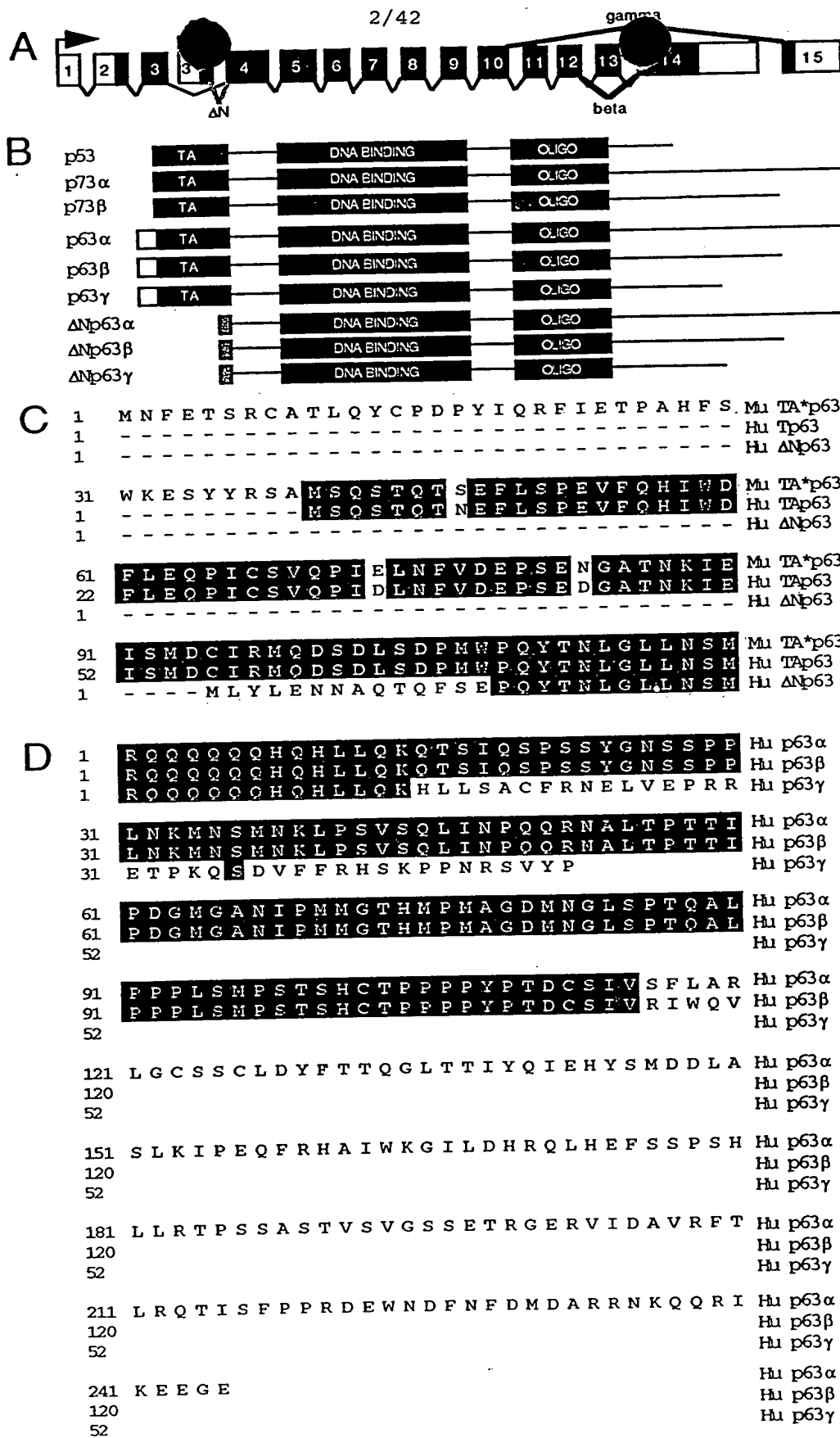


FIGURE 2

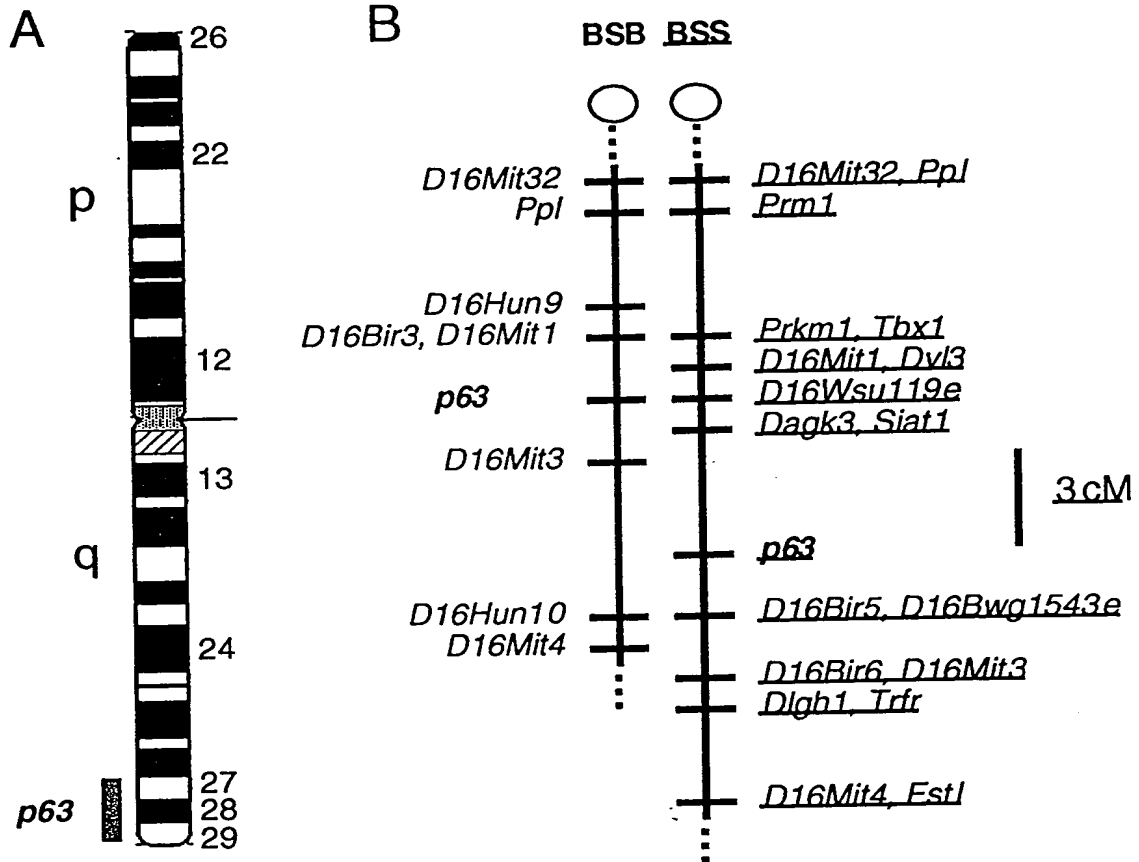


FIGURE 3

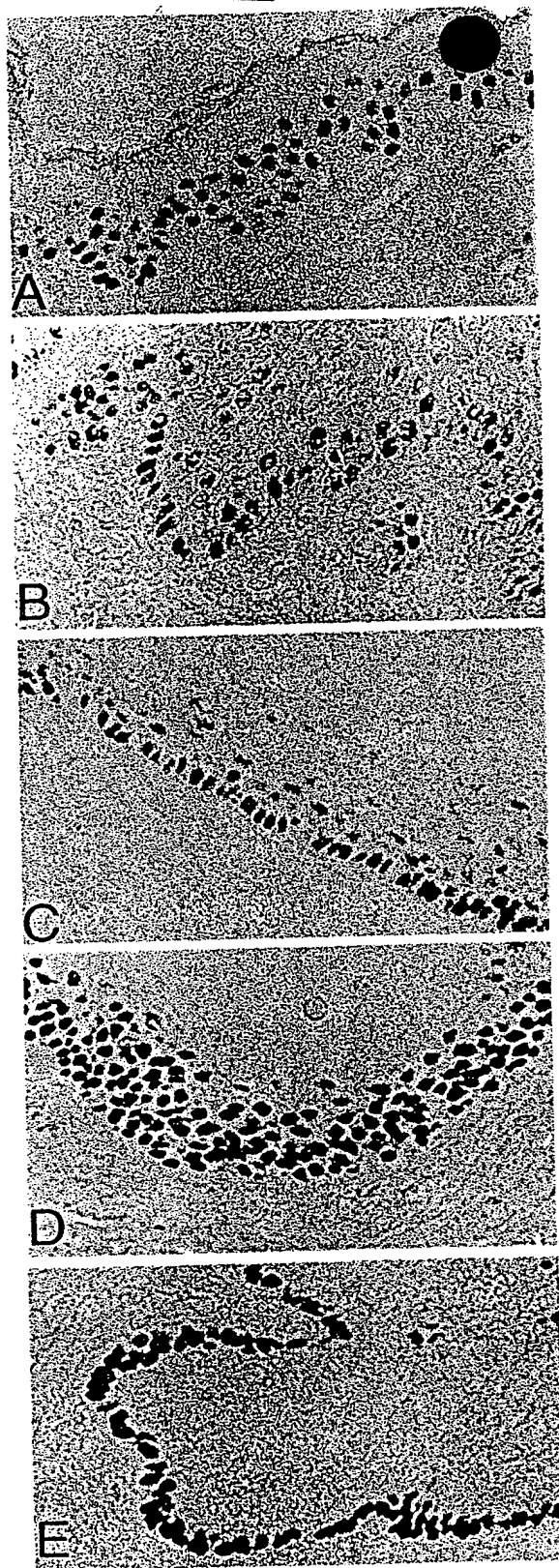


FIGURE 4

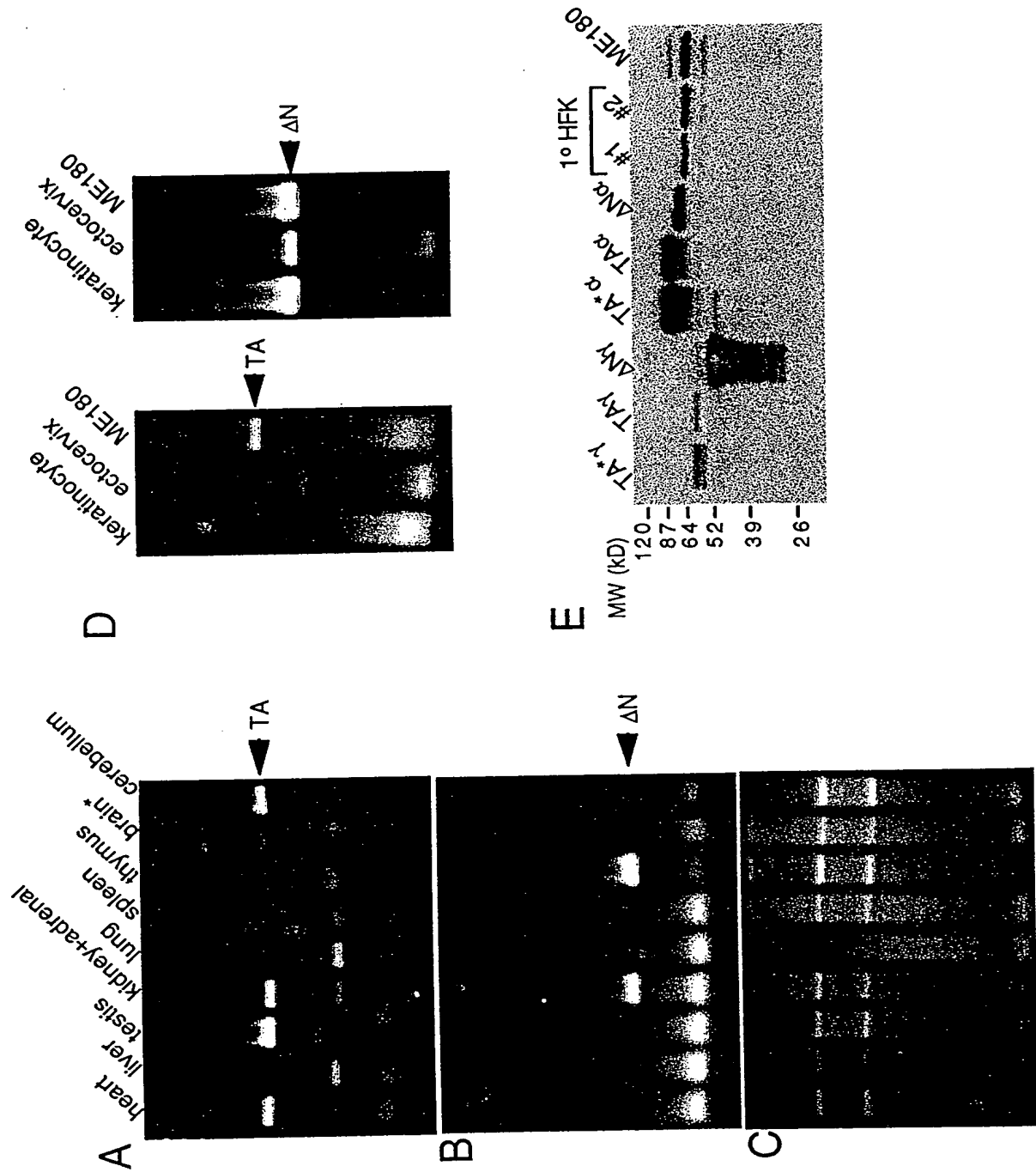


FIGURE 5

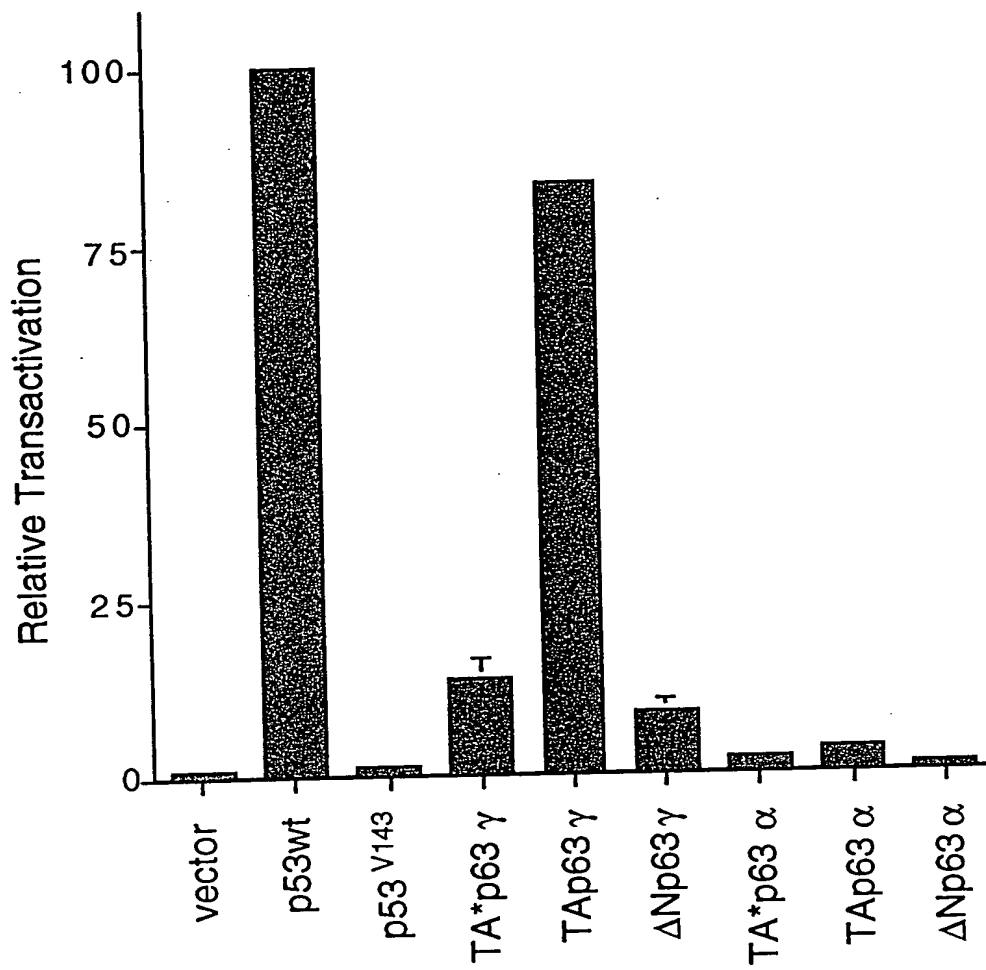


FIGURE 6

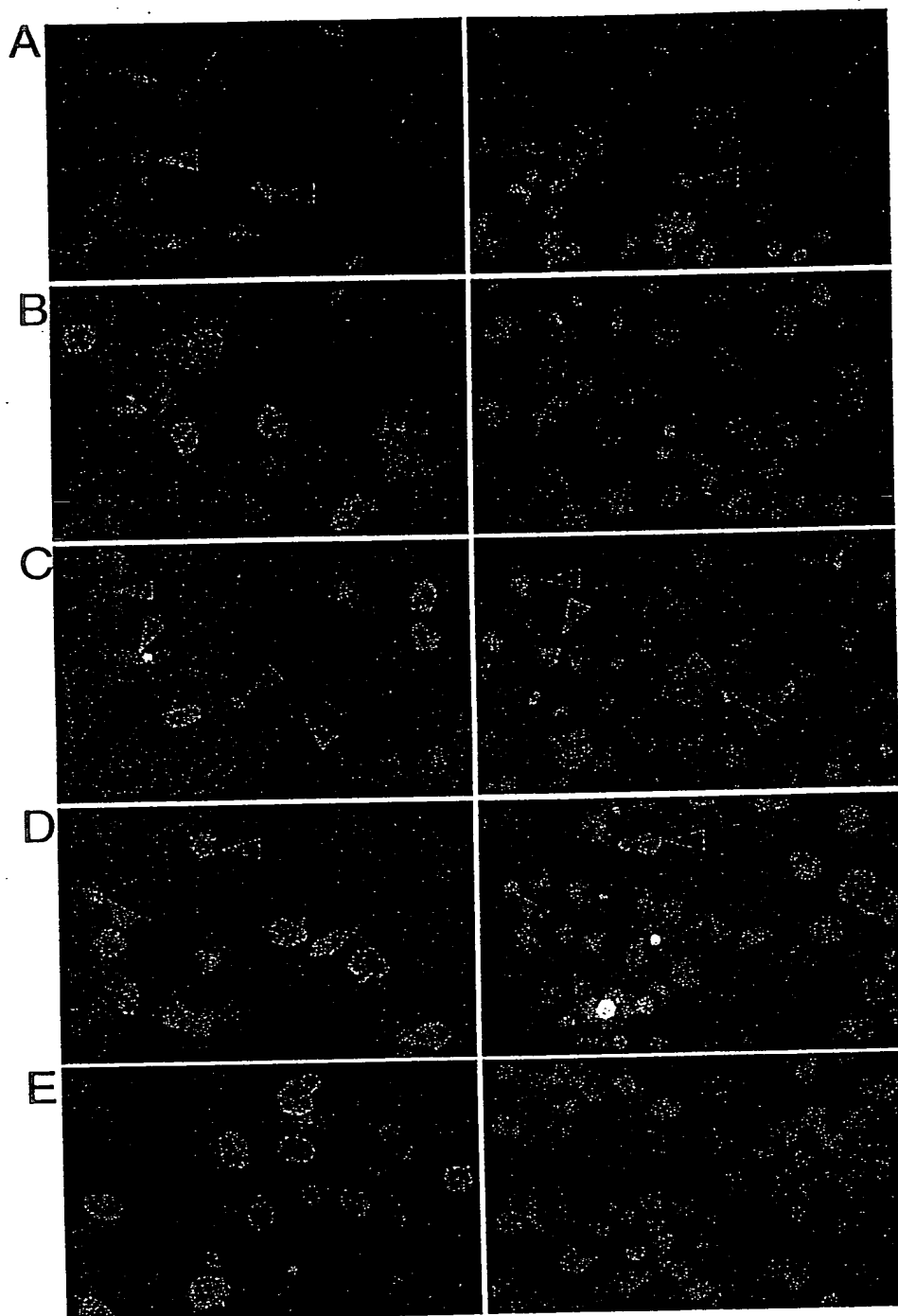


FIGURE 7

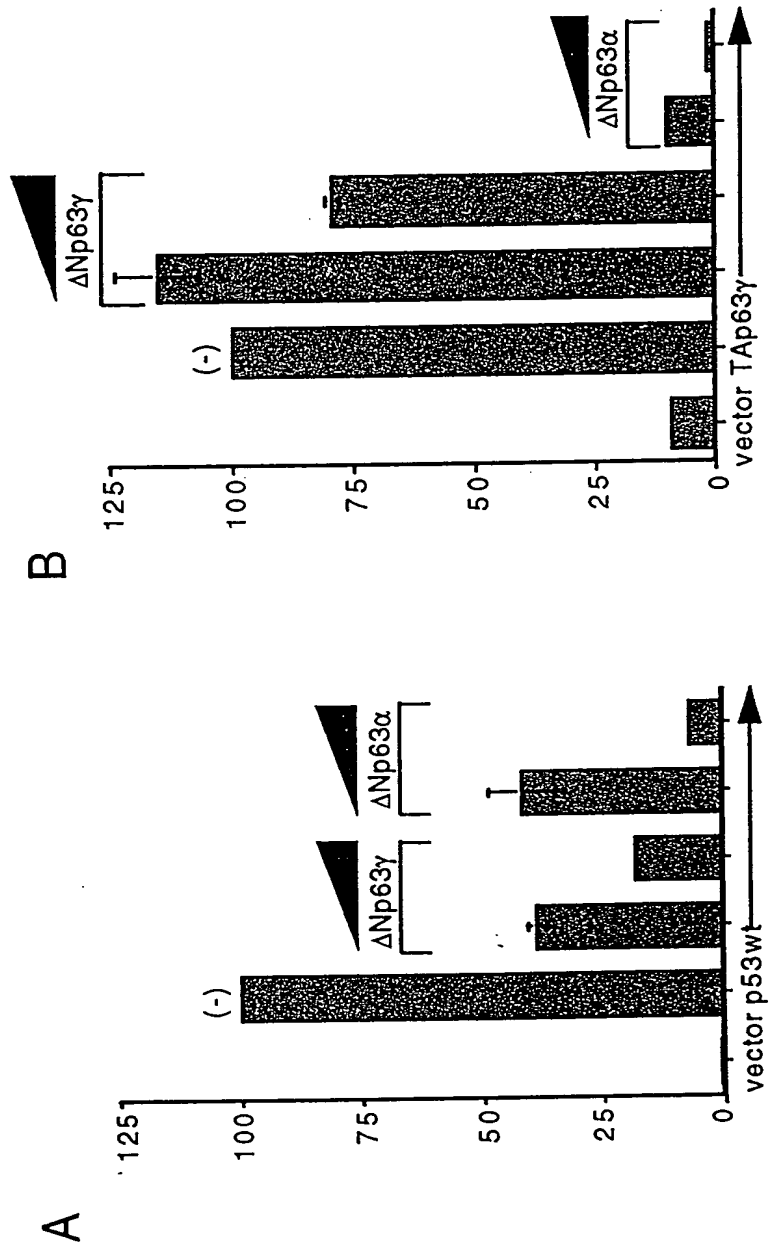


FIGURE 8

1/1
 ATG TCC CAG AGC ACA CAG ACA AAT GAA TTC CTC AGT CCA GAG GTT TTC CAG CAT ATC TGG
 M S Q S T Q T N E F L S P E V F Q H I W
 61/21
 GAT TTT CTG GAA CAG Cct ATA TGT TCA GTT CAG CCC ATT GAC TTG AAC TTT GTG GAT GAA
 D F L E Q P I C S V Q P I D L N F V D E
 121/41
 CCA TCA GAA GAT GGT GCG ACA AAC AAG ATT GAG ATT AGC ATG GAC TGT ATC CGC ATG CAG
 P S E D G A T N K I E I S M D C I R M Q
 181/61
 GAC TCG GAC CTG AGT GAC CCC ATG TGG CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC
 D S D L S D P M W P Q Y T N L G L L N S
 241/81
 ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT AAC ACA GAC CAC GCG
 M D Q Q I Q N G S S S T S P Y N T D H A
 301/101
 CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC ACC TTC GAT GCT CTC
 Q N S V T A P S P Y A Q P S S T F D A L
 361/121
 TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG CAC AGT TTC GAC GTG
 S P S P A I P S N T D Y P G P H S F D V
 421/141
 TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT TCC ACT GAA CTG AAG
 S F Q Q S S T A K S A T W T Y S T E L K
 481/161
 AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCT
 K L Y C Q I A K T C P I Q I K V M T P P
 541/181
 CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT GAG CAC GTC ACG GAG
 P Q G A V I R A M P V Y K K A E H V T E
 601/201
 GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC GAG GGA CAG ATT GCC
 V V K R C P N H E L S R E F N E G Q I A
 661/221
 CCT CCT AGT CAT TTG ATT CGA GTA GAG GGC AAC AGC CAT GCC CAG TAT GTA GAA GAT CCC
 P P S H L I R V E G N S H A Q Y V E D P
 721/241
 ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG GTT GGC ACT GAA TTC
 I T G R Q S V L V P Y E P P Q V G T E F
 781/261
 ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA GGG ATG AAC cgc Cgt
 T T V L Y N F M C N S S C V G G M N R R
 841/281
 CCA att TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGC TGC
 P I L I I V T L E T R D G Q V L G R R C
 901/301
 TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG GAT GAA GAT AGC ATC
 F E A R I C A C P G R D R K A D E D S I
 961/321
 AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG AAG CGC CCG TTT CGT
 R K Q Q V S D S T K N G D G T K R P F R
 1021/341
 CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA TCC CCA GAT GAT GAA
 Q N T H G I Q M T S I K K R R S P D D E
 1081/361
 CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG TTG AAG ATC AAA GAG
 L L Y L P V R G R E T Y E M L L K I K E
 1141/381
 TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG TAC AGG CAA CAG CAA
 S L E L M Q Y L P Q H T I E T Y R Q Q Q

FIGURE 29

1201/401
 CAG CAG CAG CAC CAG CAC TTA CAG AAA CAG ACC TCA ATA CAG TCT CCA TCA TAT
 Q Q Q H Q H L Q K Q T S I Q S P S Y
 1261/421
 GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG CTG CCT TCT GTG AGC
 G N S S P P L N K M N S M N K L P S V S
 1321/441
 CAG CTG ATC AAC CCT CAG CAG CGC AAC GCC CTC ACT CCT ACA ACC ATT CCT GAT GGC ATG
 Q L I N P Q Q R N A L T P T T I P D G M
 1381/461
 GGA GCC AAC ATT CCC ATG ATG GGC ACC CAC ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC
 G A N I P M M G T H M P M A G D M N G L
 1441/481
 AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC TCC ATG CCA TCC ACC TCC CAC TGC ACA CCC
 S P T Q A L P P P L S M P S T S H C T P
 1501/501
 CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT GTC AGT TTC TTA GCG AGG TTG GGC TGT TCA
 P P P Y P T D C S I V S F L A R L G C S
 1561/521
 TCA TGT CTG GAC TAT TTC ACG ACC CAG GGG CTG ACC ACC ATC TAT CAG ATT GAG CAT TAC
 S C L D Y F T T Q G L T T I Y Q I E H Y
 1621/541
 TCC ATG GAT GAT CTG GCA AGT CTG AAA ATC CCT GAG CAA TTT CGA CAT GCG ATC TGG AAG
 S M D D L A S L K I P E Q F R H A I W K
 1681/561
 GGC ATC CTG GAC CAC CGG CAG CTC CAC GAA TTC TCC TCC CCT TCT CAT CTC CTG CGG ACC
 G I L D H R Q L H E F S S P S H L L R T
 1741/581
 CCA AGC AGT GCC TCT ACA GTC AGT GTG GGC TCC AGT GAG ACC CGG GGT GAG CGT GTT ATT
 P S S A S T V S V G S S E T R G E R V I
 1801/601
 GAT GCT GTG CGA TTC ACC CTC CGC CAG ACC ATC TCT TTC CCA CCC CGA GAT GAG TGG AAT
 D A V R F T L R Q T I S F P P R D E W N
 1861/621
 GAC TTC AAC TTT GAC ATG GAT GCT CGC CGC AAT AAG CAA CAG CGC ATC AAA GAG GAG GGG
 D F N F D M D A R R N K Q Q R I K E E G
 1921/641
 GAG TGA
 E *

1/1
 ATG TCC CAG AGC ACA CAG ACA AAT GAA TTC CTC AGT CCA GAG GTT TTC CAG CAT ATC TGG
 M S Q S T Q T N E F L S P E V F Q H I W
 61/21
 GAT TTT CTG GAA CAG CcT ATA TGT TCA GTT CAG CCC ATT GAC TIG AAC TTT GTG GAT GAA
 D F L E Q P I C S V Q P I D L N F V D E
 121/41
 CCA TCA GAA GAT GGT GCG ACA AAC AAG ATT GAG ATT AGC ATG GAC TGT ATC CGC ATG CAG
 P S E D G A T N K I E I S M D C I R M Q
 181/61
 GAC TCG GAC CTG AGT GAC CCC ATG TGG CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC
 D S D L S D P M W P Q Y T N L G L L N S
 241/81
 ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT AAC ACA GAC CAC GCG
 M D Q Q I Q N G S S S T S P Y N T D H A
 301/101
 CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC ACC TTC GAT GCT CTC
 Q N S V T A P S P Y A Q P S S T F D A L
 361/121
 TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG CAC AGT TTC GAC GTG
 S P S P A I P S N T D Y P G P H S F D V
 421/141
 TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT TCC ACT GAA CTG AAG
 S F Q Q S S T A K S A T W T Y S T E L K
 481/161
 AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCT
 K L Y C Q I A K T C P I Q I K V M T P P
 541/181
 CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT GAG CAC GTC ACG GAG
 P Q G A V I R A M P V Y K K A E H V T E
 601/201
 GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC GAG GGA CAG ATT GCC
 V V K R C P N H E L S R E F N E G Q I A
 661/221
 CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCC
 P P S H L I R V E G N S H A Q Y V E D P
 721/241
 ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG GTT GGC ACT GAA TTC
 I T G R Q S V L V P Y E P P Q V G T E F
 781/261
 ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA GGG ATG AAC cgc Cgt
 T T V L Y N F M C N S S C V G G M N R R
 841/281
 CCA aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGC TGC
 P I L I I V T L E T R D G Q V L G R R C
 901/301
 TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG GAT GAA GAT AGC ATC
 F E A R I C A C P G R D R K A D E D S I
 961/321
 AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG AAG CGC CCG TTT CGT
 R K Q Q V S D S T K N G D G T K R P F R
 1021/341
 CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA TCC CCA GAT GAT GAA
 Q N T H G I Q M T S I K K R R S P D D E
 1081/361
 CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG TTG AAG ATC AAA GAG
 L L Y L P V R G R E T Y E M L L K I K E
 1141/381
 TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG TAC AGG CAA CAG CAA
 S L E L M Q Y L P Q H T I E T Y R Q Q Q

FIGURE 10

1201/401

CAG CAG CAG CAC CAG CAC TTA
Q Q Q H Q H L L Q K

1261/421

GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG
G N S S P P L N K M

1321/441

CAG CTT ATC AAC CCT CAG CAG CGC AAC GCC
Q L I N P Q Q R N A

1381/461

GGA GCC AAC ATT CCC ATG ATG GGC ACC CAC
G A N I P M M G T H

1441/481

AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC
S P T Q A L P P P L

1501/501

CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT
P P P Y P T D C S I

1231/411

CAG ACC TCA ATA CAG TCT CCA CTT TCA TAT
Q T S I Q S P S S Y

1291/431

AAC AGC ATG AAC AAG CTG CCT TCT GTG AGC
N S M N K L P S V S

1351/451

CTC ACT CCT ACA ACC ATT CCT GAT GGC ATG
L T P T T I P D G M

1411/471

ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC
M P M A G D M N G L

1471/491

TCC ATG CCA TCC ACC TCC CAC TGC ACA CCC
S M P S T S H C T P

1531/511

GTC AGG ATC TGG CAA GTC TGA
V R I W Q V *

1/1
 ATG TCC CAG AGC ACA CAG ACA AAT GAA TTC CTC AGT CCA GAG GTT TTC CAG CAT ATC TGG
 M S Q S T Q T N E F L S P E V F Q H I W
 61/21
 GAT TTT CTG GAA CAG Cct ATA TGT TCA GTT CAG CCC ATT GAC TTG AAC TTT GTG GAT GAA
 D F L E Q P I C S V Q P I D L N F V D E
 121/41
 CCA TCA GAA GAT GGT GCG ACA AAC AAG ATT GAG ATT AGC ATG GAC TGT ATC CGC ATG CAG
 P S E D G A T N K I E I S M D C I R M Q
 181/61
 GAC TCG GAC CTG AGT GAC CCC ATG TGG CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC
 D S D L S D P M W P Q Y T N L G L L N S
 241/81
 ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT AAC ACA GAC CAC GCG
 M D Q Q I Q N G S S S T S P Y N T D H A
 301/101
 CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC CCA CAG CCC AGC TCC ACC TTC GAT GCT CTC
 Q N S V T A P S P Y A Q P S S T F D A L
 361/121
 TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG CAC AGT TTC GAC GTG
 S P S P A I P S N T D Y P G P H S F D V
 421/141
 TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT TCC ACT GAA CTG AAG
 S F Q Q S S T A K S A T W T Y S T E L K
 481/161
 AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCT
 K L Y C Q I A K T C P I Q I K V M T P P
 541/181
 CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT GAG CAC GTC ACG GAG
 P Q G A V I R A M P V Y K K A E H V T E
 601/201
 GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC GAG GGA CAG ATT GCC
 V V K R C P N H E L S R E F N E G Q I A
 661/221
 CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAG AGC CAT GCC CAG TAT GTA GAA GAT CCC
 P P S H L I R V E G N S H A Q Y V E D P
 721/241
 ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG GTT GGC ACT GAA TTC
 I T G R Q S V L V P Y E P P Q V G T E F
 781/261
 ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA GGG ATG AAC cgc Cgt
 T T V L Y N F M C N S S C V G G M N R R
 841/281
 CCA aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGC TGC
 P I L I I V T L E T R D G Q V L G R R C
 901/301
 TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG GAT GAA GAT AGC ATC
 F E A R I C A C P G R D R K A D E D S I
 961/321
 AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG AAG CGC CCG TTT CGT
 R K Q Q V S D S T K N G D G T K R P F R
 1021/341
 CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA TCC CCA GAT GAT GAA
 Q N T H G I Q M T S I K K R R S P D D E
 1081/361
 CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG TTG AAG ATC AAA GAG
 L L Y L P V R G R E T Y E M L L K I K E
 1141/381
 TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG TAC AGG CAA CAG CAA
 S L E L M Q Y L P Q H T I E T Y R Q Q Q

FIGURE 11

1201/401

CAG CAG CAG CAC CAG CAC TTT T CAG AAA CAT CTC CTT TCA GCC TGC TTT TGG AAT GAG
 Q Q Q H Q H L L Q K H L L S A C F R N E

1251/421

CTT GTG GAG CCC CGG AGA GAA ACT CCA AAA CAA TCT GAC GTC TTC TTT AGA CAT TCC AAG
 L V E P R R E T P K Q S D V F F R H S K

1321/441

CCC CCA AAC CGA TCA GTG TAC CCA TAG
 P P N R S V Y P *

1231/411

1291/431

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCG CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTC GAT GCT CTC TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGT TTC GAC GTG TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACT GAA CTG AAG AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCT CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAC GTC ACG GAG GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCC ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGG ATG AAC cgc Cgt CCa aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGC TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAT AGC ATC AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG
 D E D S I R K Q Q V S D S T K N G D G T
 841/281
 AAG CGC CCG TTT CGT CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAA CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 TTG AAG ATC AAA GAG TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAA CAG CAA CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAG ACC TCA ATA CAG
 Y R Q Q Q Q Q Q H Q H L L Q K Q T S I Q
 1081/361
 TCT CCA TCT TCA TAT GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S P S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG CCT TCT GTG AGC CAG CTT ATC AAC CCT CAG CAG CGC AAC GCC CTC ACT CCT ACA ACC
 L P S V S Q L I N P Q Q R N A L T P T T

FIGURE 12

1201/401
 ATT CCT GAT GGC ATG GGA GCC TAC ATT CCC
 I P D G M G A N I P M M G T H M P M A G
 1261/421
 GAC ATG AAT GGA CTC AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC TCC ATG CCA TCC ACC
 D M N G L S P T Q A L P P P L S M P S T
 1321/441
 TCC CAC TGC ACA CCC CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT GTC AGT TTC TTA GCG
 S H C T P P P P Y P T D C S I V S F L A
 1381/461
 AGG TTG GGC TGT TCA TCA TGT CTG GAC TAT TTC ACG ACC CAG GGG CTG ACC ACC ATC TAT
 R L G C S S C L D Y F T T Q G L T T I Y
 1441/481
 CAG ATT GAG CAT TAC TCC ATG GAT GAT CTG GCA AGT CTG AAA ATC CCT GAG CAA TTT CGA
 Q I B H Y S M D D L A S L K I P E Q F R
 1501/501
 CAT GCG ATC TGG AAG GGC ATC CTG GAC CAC CGG CAG CTC CAC GAA TTC TCC TCC CCT TCT
 H A I W K G I L D H R Q L H E F S S P S
 1561/521
 CAT CTC CTG CCG ACC CCA AGC AGT GCC TCT ACA GTC AGT GTG GGC TCC AGT GAG ACC CGG
 H L L R T P S S A S T V S V G S S E T R
 1621/541
 GGT GAG CGT GTT ATT GAT GCT GTG CGA TTC ACC CTC CGC CAG ACC ATC TCT TTC CCA CCC
 G E R V I D A V R F T L R Q T I S F P P
 1681/561
 CGA GAT GAG TGG AAT GAC TTC AAC TTT GAC ATG GAT GCT CGC CGC AAT AAG CAA CAG CGC
 R D E W N D F N F D M D A R R N K Q Q R
 1741/581
 ATC AAA GAG GAG GGG GAG TGA
 I K E E G E *

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TOC TOG TCC ACC AGT CCC TAT
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCG CAG AAC AGC GTC ACG GCG CCC TOG CCC TAC GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTC GAT GCT CTC TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGT TTC GAC GTG TCC TTC CAG CAG TOG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACT GAA CTG AAG AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCT CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAC GTC ACG GAG GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCC ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGG ATG AAC cgc Cgt Cca aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGC TGC TTT GAG GCC OGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAT AGC ATC AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG
 D E D S I R K Q Q V S D S T K N G D G T
 841/281
 AAG CGC CCG TTT CGT CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAA CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 TTG AAG ATC AAA GAG TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAA CAG CAA CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAG ACC TCA ATA CAG
 Y R Q Q Q Q Q Q H Q H L L Q K Q T S I Q
 1081/361
 TCT CCA TCT TCA TAT GGT AAC AGC TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S P S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG OCT TCT GTG AGC CAG CTT ATC AAC CCT CAG CAG CGC AAC GCC CTC ACT CCT ACA ACC
 L P S V S Q L I N P Q Q R N A L T P T T

FIGURE 13

1201/401

ATT OCT GAT GGC ATG GGC ACC AAC ATT CCC ATG ATG GGC ACC CAC A CA ATG GCT GGA
 I P D G M G A N I P M M G T H M P M A G

1261/421

GAC ATG AAT GGA CTC AGC CCC ACC CAG GCA CTC CCT CCC CCA CTC TCC ATG CCA TCC ACC
 D M N G L S P T Q A L P P P L S M P S T

1321/441

TCC CAC TCC ACA CCC CCA CCT CCG TAT CCC ACA GAT TGC AGC ATT GTC AGG ATC TGG CAA
 S H C T P P P Y P T D C S I V R I W Q

1381/461

GTC TGA
 V "

1231/411

1291/431

1351/451

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGT CCC TAT
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCG CAG AAC AGC GTC ACG GCG CCC TCG CCC TAC GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTC GAT GCT CTC TCT CCA TCA CCC GCC ATC CCC TCC AAC ACC GAC TAC CCA GGC CCG
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGT TTC GAC GTG TCC TTC CAG CAG TCG AGC ACC GCC AAG TCG GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACT GAA CTG AAG AAA CTC TAC TGC CAA ATT GCA AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCT CCT CAG GGA GCT GTT ATC CGC GCC ATG CCT GTC TAC AAA AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAC GTC ACG GAG GTG GTG AAG CGG TGC CCC AAC CAT GAG CTG AGC CGT GAA TTC AAC
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCT AGT CAT TTG ATT CGA GTA GAG GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCC ATC ACA GGA AGA CAG AGT GTG CTG GTA CCT TAT GAG CCA CCC CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACG ACA GTC TTG TAC AAT TTC ATG TGT AAC AGC AGT TGT GTT GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGG ATG AAC CGC Cgt Cca aTT TTA ATC ATT GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGC TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC AGG AAG GCG
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAT AGC ATC AGA AAG CAG CAA GTT TCG GAC AGT ACA AAG AAC GGT GAT GGT ACG
 D E D S I R K Q Q V S D S T K N G D G T
 841/281
 AAG GGC CCG TTT CGT CAG AAC ACA CAT GGT ATC CAG ATG ACA TCC ATC AAG AAA CGA AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAA CTG TTA TAC TTA CCA GTG AGG GGC CGT GAG ACT TAT GAA ATG CTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 TTG AAG ATC AAA GAG TCC CTG GAA CTC ATG CAG TAC CTT CCT CAG CAC ACA ATT GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAA CAG CAA CAG CAG CAG CAC CAG CAC TTA CTT CAG AAA CAT CTC CTT TCA GCC
 Y R Q Q Q Q Q H Q H L L Q K H L L S A
 1081/361
 TGC TTC AGG AAT GAG CTT GTG GAG CCC CGG AGA GAA ACT CCA AAA CAA TCT GAC GTC TTC
 C F R N E L V E P R R E T P K Q S D V F
 1141/381
 TTT AGA CAT TCC AAG CCC CCA AAC CGA TCA GTG TAC CCA TAG
 F R H S K P P N R S V Y P *

FIGURE 14

1/1
 ATG AAT TTT GAA ACT TCA CGG TGT GCC ACC CTA CAG TAC TGC CCC GAC CCT TAC ATC CAG
 M N F E T S R C A T L Q Y C P D P Y I Q
 61/21
 CGT TTC ATA GAA ACC CCA GCT CAT TTC TCG TGG AAA GAA AGT TAT TAC AGA TCT GCC ATG
 R F I E T P A H F S W K E S Y Y R S A M
 121/41
 TCG CAG AGC ACC CAG ACA AGC GAG TTC CTC AGC CCA GAG GTC TTC CAG CAT ATC TGG GAT
 S Q S T Q T S E F L S P E V F Q H I W D
 181/61
 TTT CTG GAA CAG CCT ATA TGC TCA GTA CAG CCC ATC GAG TTG AAC TTT GTG GAT GAA CCT
 F L E Q P I C S V Q P I E L N F V D E P
 241/81
 TCC GAA AAT GGT GCA aCa aAc aAG ATT GAG ATT AGC ATG GAT TGT ATC cGC ATG Caa GAC
 S E N G A T N K I E I S M D C I R M Q D
 301/101
 TCA GAC CTC AGT GAC CCC ATG Tgg CCA CAG TAC ACG AAC CTG GGG CTC CTG AAC AGC ATG
 S D L S D P M W P Q Y T N L G L L N S M
 361/121
 GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC AaC ACA GAC CAC GCA CAG
 D Q Q I Q N G S S S T S P Y N T D H A Q
 421/141
 AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC ACC TTT GAT GCC CTC TCT
 N S V T A P S P Y A Q P S S T F D A L S
 481/161
 CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA CAC AGC TTC GAT GTG TCC
 P S P A I P S N T D Y P G P H S F D V S
 541/181
 TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT TCC ACC GAA CTG AAG AAG
 F Q Q S S T A K S A T W T Y S T E L K K
 601/201
 CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCC CCA
 L Y C Q I A K T C P I Q I K V M T P P P
 661/221
 CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT GAG CAT GTC ACC GAG GTT
 Q G A V I R A M P V Y K K A E H V T E V
 721/241
 GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT GAG GGA CAG ATT GCC CCT
 V K R C P N H E L S R E F N E G Q I A P
 781/261
 CCC AGT CAT CTG ATT CGA GTA gAA GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCT ATC
 P S H L I R V E G N S H A Q Y V E D P I
 841/281
 ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CaG GTT GGC ACT GAA TTC ACA
 T G R Q S V L V P Y E P P Q V G T E F T
 901/301
 ACA GTC CTG TAC aAT TTC ATG TGT AAC AGC AGC TGC GTC GGA GGA ATG AAC AGA Cgt CCA
 T V L Y N F M C N S S C V G G M N R R P
 961/321
 ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA gTC CTG GGC CGA CGG TGC TTT
 I L I I V T L E T R D G Q V L G R R C F
 1021/341
 GAG GCC CGG ATC TGT Gct TGC CCA GGA AGA GAC CGG AAG GCA GAT GAA GAC AGC ATC AGA
 E A R I C A C P G R D R K A D E D S I R
 1081/361
 AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG AAG CGC CCT TTC CGT CAG
 K Q Q V S D S A K N G D G T K R P F R Q
 1141/381
 AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA TCC CCA GAT GAT GAG CTG
 N T H G I Q M T S I K K R R S P D D E L

FIGURE 15

1201/401
 CTG TAC CTA CCA GTG AGA GGT GAG ACG TAC GAG ATG TTG CTG AAG ATG AAG TCA
 L Y L P V R G R E T Y E M L L K I K E S
 1261/421
 CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG TAC AGG CAG CAG CAG CAG
 L E L M Q Y L P Q H T I E T Y R Q Q Q Q
 1321/441
 CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG TCT CAG TCT TCA TAT GGC
 Q Q H Q R L L Q K Q T S M Q S Q S S Y G
 1381/461
 AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG CTG CCT TCC GTG AGC CAG
 N S S P P L N K M N S M N K L P S V S Q
 1441/481
 CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC ATG CCT GAG GGC ATG GGA
 L I N P Q Q R N A L T P T T M P E G M G
 1501/501
 GCC AAC ATT CCT ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC AGC
 A N I P M M G T H M P M A G D M N G L S
 1561/521
 CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC TCC CAC TGC ACC CCA CCA
 P T Q A L P P P L S M P S T S H C T P P
 1621/541
 CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC AGT TTC TTA GCA Agg Ttg ggc TGC TCA TCA
 P P Y P T D C S I V S F L A R L G C S S
 1681/561
 TGC CTG GAC TAT TTC ACG ACC CAG ggg CTG Acc ACC ATC TaT CAG ATT GAG CAT TAC TCC
 C L D Y F T T Q G L T T I Y Q I E H Y S
 1741/581
 ATG GAT GAT TtG GCa aGT CTG AAG ATc cCT GAA CAG TTC CGA CAT GCC ATC TGG AAg GGC
 M D D L A S L K I P E Q F R H A I W K G
 1801/601
 aTC CTG GAc CAC AGG cAG cTG CAC GAC TTC TCC TCA CCT CCT CaT CTC CTG AGG ACC CCA
 I L D H R Q L H D F S S P P H L L R T P
 1861/621
 AGT GGT GCC TCT ACC GTC AGT GTG GGC TCC AGT GAG ACC CGT GGT GAA CGT GTG ATC GAT
 S G A S T V S V G S S E T R G E R V I D
 1921/641
 GCC GTG CGC TTT ACC CTC CGC CAG ACC ATC TCT TTT CCA CCC CGT GAC GAG TGG AAT GAT
 A V R F T L R Q T I S F P P R D E W N D
 1981/661
 TTC AAC TTT GAC ATG GAT TCT CGT CGC AAC AAG CAG CAG CGT aTC AAA GAG GAA GGA GAA
 F N F D M D S R R N K Q Q R I K E E G E
 2041/681
 TGA
 *

1/1
 ATG AAT TTT GAA ACT TCA CGG TGT GCC ACC
 M N F E T S R C A T
 61/21
 CGT TTC ATA GAA ACC CCA GCT CAT TTC TCG
 R F I E T P A H F S
 121/41
 TCG CAG AGC ACC CAG ACA AGC GAG TTC CTC
 S Q S T Q T S E F L
 181/61
 TTT CTG GAA CAG CCT ATA TGC TCA GTA CAG
 F L E Q P I C S V Q
 241/81
 TCC GAA AAT GGT GCA aCa aaC aaG ATT GAG
 S E N G A T N K I E
 301/101
 TCA GAC CTC AGT GAC ccc ATG Tgg CCA CAG
 S D L S D P M W P Q
 361/121
 GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC
 D Q Q I Q N G S S S
 421/141
 AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA
 N S V T A P S P Y A
 481/161
 CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT
 P S P A I P S N T D
 541/181
 TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC
 F Q Q S S T A K S A
 601/201
 CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC
 L Y C Q I A K T C P
 661/221
 CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC
 Q G A V I R A M P V
 721/241
 GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC
 V K R C P N H E L S
 781/261
 CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC
 P S H L I R V E G N
 841/281
 ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT
 T G R Q S V L V P Y
 901/301
 ACA GTC CTG TAC aAT TTC ATG TGT AAC AGC
 T V L Y N F M C N S
 961/321
 ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA
 I L I I V T L E T R
 1021/341
 GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA
 E A R I C A C P G R
 1081/361
 AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC
 K Q Q V S D S A K N
 1141/381
 AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC
 N T H G I Q M T S I
 31/11
 CTA CAG TAC TGC CCC GAC CCT TAC ATC CAG
 L Q Y C P D P Y I Q
 91/31
 TGG AAA GAA AGT TAT TAC AGA TCT GCC ATG
 W K E S Y Y R S A M
 151/51
 AGC CCA GAG GTC TTC CAG CAT ATC TGG GAT
 S P E V F Q H I W D
 211/71
 ccc ATC GAG TTG AAC TTT GTG GAT GAA CCT
 P I E L N F V D E P
 271/91
 ATT AGC ATG GAT TGT ATC cGC ATG Caa GAC
 I S M D C I R M Q D
 331/111
 TAC ACG AAC CTG GGG CTC CTG AAC AGC ATG
 Y T N L G L L N S M
 391/131
 ACC AGC CCC TAC AaC ACA GAC CAC GCA CAG
 T S P Y N T D H A Q
 451/151
 CAG CCC AGC TCC ACC TTT GAT GCC CTC TCT
 Q P S S T F D A L S
 511/171
 TAC CCG GGC CCA CAC AGC TTC GAT GTG TCC
 Y P G P H S F D V S
 571/191
 ACC TGG ACG TAT TCC ACC GAA CTG AAG AAG
 T W T Y S T E L K K
 631/211
 ATC CAG ATC AAG GTG ATG ACC CCA CCC CCA
 I Q I K V M T P P P
 691/231
 TAC AAG AAA GCT GAG CAT GTC ACC GAG GTT
 Y K K A E H V T E V
 751/251
 COT GAG TTC AAT GAG GGA CAG ATT GCC CCT
 R E F N E G Q I A P
 811/271
 AGC CAT GCC CAG TAT GTA GAA GAT CCT ATC
 S H A Q Y V E D P I
 871/291
 GAG CCA CCA CaG GTT GGC ACT GAA TTC ACA
 E P P Q V G T E F T
 931/311
 AGC TGC GTC GGA GGA ATG AAC AGA Cgt CCA
 S C V G G M N R R P
 991/331
 GAT GGG CAA gTC CTG GGC CGA CGG TGC TTT
 D G Q V L G R R C F
 1051/351
 GAC CGG AAG GCA GAT GAA GAC AGC ATC AGA
 D R K A D E D S I R
 1111/371
 GGC GAT GGT ACG AAG CGC CCT TTC COT CAG
 G D G T K R P F R Q
 1171/391
 AAG AAA CGG AGA TCC CCA GAT GAT GAG CTG
 K K R R S P D D E L

FIGURE 16

1201/401

CTG TAC CTA CCA GTG AGA GGT GAG ACG TAC GAG ATG TTG CTG AAG ATC GAG TCA
 L Y L P V R G R E T Y E M L L K I K E S

1261/421

CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG TAC AGG CAG CAG CAG CAG
 L E L M Q Y L P Q H T I E T Y R Q Q Q Q

1321/441

CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG TCT CAG TCT TCA TAT GGC
 Q Q H Q H L L Q K Q T S M Q S Q S S Y G

1381/461

AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG CTG CCT TCC GTG AGC CAG
 N S S P P L N K M N S M N K L P S V S Q

1441/481

CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC ATG CCT GAG GGC ATG GGA
 L I N P Q Q R N A L T P T T M P E G M G

1501/501

GCC AAC ATT CCT ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA GAC ATG AAT GGA CTC AGC
 A N I P M M G T H M P M A G D M N G L S

1561/521

CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC TCC CAC TGC ACC CCA CCA
 P T Q A L P P P L S M P S T S H C T P P

1621/541

CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC AGG ATT TGG Caa GTC TGA
 P P Y P T D C S I V R I W Q V *

1231/411

1291/431

1351/451

1411/471

1471/491

1531/511

1591/531

1651/551

1/1
 ATG AAT TTT GAA ACT TCA CGG TGT GCC ACC CTA CAG TAC TGC CCC GAC CCT TAC ATC CAG
 M N F E T S R C A T L Q Y C P D P Y I Q
 61/21
 CGT TTC ATA GAA ACC CCA GCT CAT TTC TCG TGG AAA GAA AGT TAT TAC AGA TCT GCC ATG
 R F I E T P A H F S W K E S Y Y R S A M
 121/41
 TCG CAG AGC ACC CAG ACA AGC GAG TTC CTC AGC CCA GAG GTC TTC CAG CAT ATC TGG GAT
 S Q S T Q T S E F L S P E V F Q H I W D
 181/61
 TTT CTG GAA CAG CCT ATA TGC TCA GTA CAG CCC ATC GAG TTG AAC TTT GTG GAT GAA CCT
 F L E Q P I C S V Q P I E L N F V D E P
 241/81
 TCC GAA AAT GGT GCA aCa aaC aaG ATT GAG ATT AGC ATG GAT TGT ATC cGC ATG Caa GAC
 S E N G A T N K I E I S M D C I R M Q D
 301/101
 TCA GAC CTC AGT GAC CCC ATG Tgg CCA CAG TAC ACG aAC cTg ggg CTC CTG aAC AGC ATg
 S D L S D P M W P Q Y T N L G L L N S M
 361/121
 GAC CAG CAG ATT CAG AAC GGC TCC TcG TCC ACC AGC CCc TAc aaC ACA GAC CAC GCA CAG
 D Q Q I Q N G S S S T S P Y N T D H A Q
 421/141
 AAT AGC GTG ACG GCG CCc TCG CCc TAT GCA CAG CCC AGC TCC ACc TTt GAT GCC cTC TCT
 N S V T A P S P Y A Q P S S T F D A L S
 481/161
 CCA Tcc cct GCC ATT CCc TCC aAC ACA GAT TAC CCG GGC CCA CAC AGc TTC GAT GTG TCC
 P S P A I P S N T D Y P G P H S F D V S
 541/181
 TTC CAG CAG TCA AGC AcT GCC AAG TCA GCC Acc TGG ACG TAT TCC ACC GAA CTG AAG AAG
 F Q Q S S T A K S A T W T Y S T E L K K
 601/201
 CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG GTG ATG ACC CCA CCC CCA
 L Y C Q I A K T C P I Q I K V M T P P P
 661/221
 CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT GAG CAT GTC ACC GAG GTT
 Q G A V I R A M P V Y K K A E H V T E V
 721/241
 GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT GAG GGA CAG ATT GCC CCT
 V K R C P N H E L S R E F N E G Q I A P
 781/261
 CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC AGC CAT GCC CAG TAT GTA GAA GAT CCT ATC
 P S H L I R V E G N S H A Q Y V E D P I
 841/281
 ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CAG GTT GGC ACT GAA TTC ACA
 T G R Q S V L V P Y E P P Q V G T E F T
 901/301
 ACA GTC CTG TAC AAT TTC ATG TGT AAC AGC AGC TGC GTC GGA GGA ATG AAC AGA CGT CCA
 T V L Y N F M C N S S C V G G M N R R P
 961/321
 ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC CTG GGC CGA CGG TGC TTT
 I L I I V T L E T R D G Q V L G R R C F
 1021/341
 GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC CGG AAG GCA GAT GAA GAC AGC ATC AGA
 E A R I C A C P G R D R K A D E D S I R
 1081/361
 AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GCT TTC CGT CAG AAT ACA CAC GGA
 K Q Q V S D S A K N G D A F R Q N T H G
 1141/381
 ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA TCC CCA GAT GAT GAG CTG CTG TAC CTA CCA
 I Q M T S I K K R R S P D D E L L Y L P

FIGURE 17

1201/401

GTG AGA GGT CGT GAG ACG TAC [REDACTED] ATG TTG CTG AAG ATC AAA GAG TCA CTG [REDACTED] CTC ATG
V R G R E T Y [REDACTED] M L L K I K E S L [REDACTED] L M

1261/421

CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG TAC AGG CAG CAG CAG CAG CAG CAG CAG CAG
Q Y L P Q H T I E T Y R Q Q Q Q Q Q H Q

1321/441

CAC CTA CTT CAG AAA CAT CTC CTT TCA GCC TGC TTC AGG AAT GAG CTT GTG GAG CCC CGG
H L L Q K H L L S A C F R N E L V E P R

1381/461

GGA GAA GCT CCG ACA CAG TCT GAC GTC TTC TTT AGA CAT TCC AAC CCC CCA AAC CAC TCC
G E A P T Q S D V F F R H S N P P N H S

1441/481

GTG TAC CCA TAG

V Y P *

1231/411

1291/431

1351/451

1411/471

1/1
 ATG TTG TAC CTG gAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAc ACA GAC CAC GCA CAG AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTT GAT GCC CTC TCT CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGC TTC GAT GTG TCC TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACC GAA CTG AAG AAG CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCC CCA CAG GGC GCT GTG ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAT GTC ACC GAG GTT GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCC AGT CAT CTG ATT CGA GTA gAA GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCT ATC ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CaG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACA ACA GTC CTG TAC aAT TTC ATG TGT AAC AGC AGC TGC GTC GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGA ATG AAC AGA CgT CCA ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA gTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGG TGC TTT GAG GCC CGG ATC TGT GcT TGC CCA GGA AGA GAC CGG AAG GCA
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAC AGC ATC AGA AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG
 D E D S I R K Q Q V S D S A K N G D G T
 841/281
 AAG CGC CCT TTC CGT CAG AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAG CTG CTG TAC CTA CCA GTG AGA GGT CGT GAG ACG TAC GAG ATG TTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 CTG AAG ATC AAA GAG TCA CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAG CAG CAG CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG
 Y R Q Q Q Q Q Q H Q H L L Q K Q T S M Q
 1081/361
 TCT CAG TCT TCA TAT GGC AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S Q S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG CCT TCC GTG AGC CAG CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC
 L P S V S Q L I N P Q Q R N A L T P T T

FIGURE 18

1201/401

ATG CCT GAG GGC ATG GGA GCC AAC ATT CCT ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA
M P E G M G A N I P M M G T H M P M A G

1261/421

GAC ATG AAT GGA CTC AGC CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC
D M N G L S P T Q A L P P P L S M P S T

1321/441

TCC CAC TGC ACC CCA CCA CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC AGT TTC TTA GCA
S H C T P P P P Y P T D C S I V S F L A

1381/461

Agg Tcg ggC TGC TCA TCA TGC CTG GAC TAT TTC ACG ACC CAG ggg CTG AcC ACC ATC TaT
R L G C S S C L D Y F T T Q G L T T I Y

1441/481

CAG ATT GAG CAT TAC TCC ATG GAT GAT TcG GCa aGT CTG AAG ATc cCT GAA CAG TTC CGA
Q I E H Y S M D D L A S L K I P E Q F R

1501/501

CAT GCC ATC TGG AAg GGC aTC CTG GAc CAC AGG cAG cTG CAC GAC TTC TCC TCA CCT CCT
H A I W K G I L D H R Q L H D F S S P P

1561/521

CaT CTC CTG AGG ACC CCA AGT GGT GCC TCT ACC GTC AGT GTG GGC TCC AGT GAG ACC CGT
H L L R T P S G A S T V S V G S S E T R

1621/541

GGT GAA CGT GTG ATC GAT GCC GTG CGC TTT ACC CTC CGC CAG ACC ATC TCT TTT CCA CCC
G E R V I D A V R F T L R Q T I S F P P

1681/561

CGT GAC GAG TGG AAT GAT TTC AAC TTT GAC ATG GAT TCT CGT CGC AAC AAG CAG CAG CGT
R D E W N D F N F D M D S R R N K Q Q R

1741/581

aTC AAA GAG GAA GGA GAA TGA
I K E E G E *

1231/411

ATG ATG GGC ACT CAC ATG CCA ATG GCT GGA
M M G T H M P M A G

1291/431

CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC
L P P P L S M P S T

1351/451

ACA GAC TGC AGC ATT GTC AGT TTC TTA GCA
T D C S I V S F L A

1411/471

TTC ACG ACC CAG ggg CTG AcC ACC ATC TaT
F T T Q G L T T I Y

1471/491

GCa aGT CTG AAG ATc cCT GAA CAG TTC CGA
A S L K I P E Q F R

1531/511

AGG cAG cTG CAC GAC TTC TCC TCA CCT CCT
R Q L H D F S S P P

1591/531

ACC GTC AGT GTG GGC TCC AGT GAG ACC CGT
T V S V G S S E T R

1651/551

ACC CTC CGC CAG ACC ATC TCT TTT CCA CCC
T L R Q T I S F P P

1711/571

ATG GAT TCT CGT CGC AAC AAG CAG CAG CGT
M D S R R N K Q Q R

1/1
 ATG TTG TAC CTG GAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCA CAG AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTT GAT GCC CTC TCT CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA
 T F D A L S P S P A I P S N T D Y P G P
 241/81
 CAC AGC TTC GAT GTG TCC TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGG ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACC GAA CTG AAG AAG CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCC CCA CAG GGC GGT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAT GTC ACC GAG GTT GTG AAA CGA TGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TAT GTA GAA GAT CCT ATC ACG GGA AGG CAG AGC GTG CTG GTC CCT TAT GAG CCA CCA CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACA ACA GTC CTG TAC AAT TTC ATG TGT AAC AGC AGC TGC GTC GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGA ATG AAC AGA CGT CCA ATT TTA ATC ATC GTT ACT CTG GAA ACC AGA GAT GGG CAA GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG GGC CGA CGG TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC CGG AAG GCA
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAC AGC ATC AGA AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GGT ACG
 D E D S I R K Q Q V S D S A K N G D G T
 841/281
 AAG CGC CCT TTC CGT CAG AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA
 K R P F R Q N T H G I Q M T S I K K R R
 901/301
 TCC CCA GAT GAT GAG CTG CTG TAC CTA CCA GTG AGA GGT CGT GAG ACG TAC GAG ATG TTG
 S P D D E L L Y L P V R G R E T Y E M L
 961/321
 CTG AAG ATC AAA GAG TCA CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG
 L K I K E S L E L M Q Y L P Q H T I E T
 1021/341
 TAC AGG CAG CAG CAG CAG CAG CAG CAC CAG CAC CTA CTT CAG AAA CAG ACC TCG ATG CAG
 Y R Q Q Q Q Q Q H Q H L L Q K Q T S M Q
 1081/361
 TCT CAG TCT TCA TAT GGC AAC AGT TCC CCA CCT CTG AAC AAA ATG AAC AGC ATG AAC AAG
 S Q S S Y G N S S P P L N K M N S M N K
 1141/381
 CTG CCT TCC GTG AGC CAG CTT ATC AAC CCA CAG CAG CGC AAT GCC CTC ACT CCC ACC ACC
 L P S V S Q L I N P Q Q R N A L T P T T

FIGURE 19

1201/401

ATG CCT GAG GGC ATG GGA GCC ATT CCT ATG ATG GGC ACT CAC ATG CCA ATT GCT GGA
 M P E G M G A N I P M M G T H M P M A G

1261/421

GAC ATG AAT GGA CTC AGC CCT ACC CAA GCT CTC CCT CCT CCA CTC TCC ATG CCC TCC ACC
 D M N G L S P T Q A L P P P L S M P S T

1321/441

TCC CAC TGC ACC CCA CCA CCG CCC TAC CCC ACA GAC TGC AGC ATT GTC AGG ATT tGG Caa
 S H C T P P P P Y P T D C S I V R I W Q

1381/461

GTC TGA

V *

1231/411

1291/431

1351/451

1/1
 ATG TTG TAC CTG gAA AAC AAT GCC CAG ACT CAA TTT AGT GAG CCA CAG TAC ACG AAC CTG
 M L Y L E N N A Q T Q F S E P Q Y T N L
 61/21
 GGG CTC CTG AAC AGC ATG GAC CAG CAG ATT CAG AAC GGC TCC TCG TCC ACC AGC CCC TAC
 G L L N S M D Q Q I Q N G S S S T S P Y
 121/41
 AAC ACA GAC CAC GCA CAG AAT AGC GTG ACG GCG CCC TCG CCC TAT GCA CAG CCC AGC TCC
 N T D H A Q N S V T A P S P Y A Q P S S
 181/61
 ACC TTT GAT GCC CTC TCT CCA TCC CCT GCC ATT CCC TCC AAC ACA GAT TAC CCG GGC CCA
 T F D A L S F S P A I P S N T D Y P G P
 241/81
 CAC AGC TTC GAT GTG TCC TTC CAG CAG TCA AGC ACT GCC AAG TCA GCC ACC TGg ACG TAT
 H S F D V S F Q Q S S T A K S A T W T Y
 301/101
 TCC ACC GAA CTG AAG AAG CTG TAC TGC CAG ATT GCG AAG ACA TGC CCC ATC CAG ATC AAG
 S T E L K K L Y C Q I A K T C P I Q I K
 361/121
 GTG ATG ACC CCA CCC CCA CAG GGC GCT GTT ATC CGT GCC ATG CCT GTC TAC AAG AAA GCT
 V M T P P P Q G A V I R A M P V Y K K A
 421/141
 GAG CAT GTC ACC GAG GTT GTG AAA CGA tGC CCT AAC CAT GAG CTG AGC CGT GAG TTC AAT
 E H V T E V V K R C P N H E L S R E F N
 481/161
 GAG GGA CAG ATT GCC CCT CCC AGT CAT CTG ATT CGA GTA GAA GGG AAC AGC CAT GCC CAG
 E G Q I A P P S H L I R V E G N S H A Q
 541/181
 TaT GTA GAA gAT CCT ATC aCG GGA AGG CAG AGC GTG CTG GTC CCT tAT GAG CCA CCA CAG
 Y V E D P I T G R Q S V L V P Y E P P Q
 601/201
 GTT GGC ACT GAA TTC ACA ACA gTC CTG TAC AAT TTC ATG TGT aAC AGC AGC TGC GTC GGA
 V G T E F T T V L Y N F M C N S S C V G
 661/221
 GGA ATG AAC AGA CGT CCA aTT TTA ATC ATC GTT ACT CTG GAA ACC AgA GAT GGG CAa GTC
 G M N R R P I L I I V T L E T R D G Q V
 721/241
 CTG gGC CGA CGG TGC TTT GAG GCC CGG ATC TGT GCT TGC CCA GGA AGA GAC CGG AAG GCA
 L G R R C F E A R I C A C P G R D R K A
 781/261
 GAT GAA GAC AGC ATC AGA AAG CAG CAA GTA TCG GAC AGC GCA AAG AAC GGC GAT GCT TTC
 D E D S I R K Q Q V S D S A K N G D A F
 841/281
 CGT CAG AAT ACA CAC GGA ATC CAG ATG ACT TCC ATC AAG AAA CGG AGA TCC CCA GAT GAT
 R Q N T H G I Q M T S I K K R R S P D D
 901/301
 GAG CTG CTG TAC CTA CCA GTG AGA GGT CGT GAG ACG TAC GAG ATG TTG CTG AAG ATC AAA
 E L L Y L P V R G R E T Y E M L L K I K
 961/321
 GAG TCA CTG GAG CTC ATG CAG TAC CTC CCT CAG CAC ACG ATC GAA ACG TAC AGG CAG CAG
 E S L E L M Q Y L P Q H T I E T Y R Q Q
 1021/341
 CAG CAG CAG CAG CAC CAG CAC CTA CTT CAG AAA CAT CTC CTT TCA GCC TGC TTC AGG AAT
 Q Q Q Q H Q H L L Q K H L L S A C F R N
 1081/361
 GAG CTT GTG GAG CCC CGG GGA GAA GCT CCG ACA CAG TCT GAC GTC TTC TTT AGA CAT TCC
 E L V E P R G E A P T Q S D V F F R H S
 1141/381
 AAC CCC CCA AAC CAC TCC GTG TAC CCA TAG
 N P P N H S V Y P *

FIGURE 20

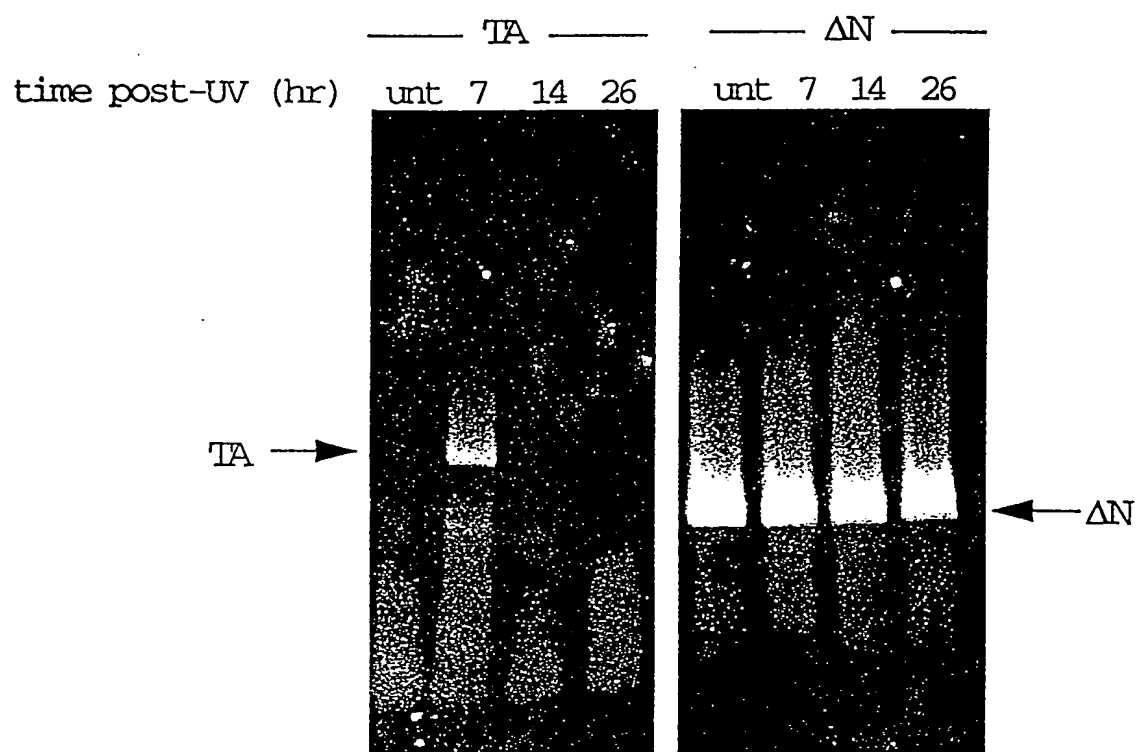


Figure 21. UV Induction of TA-p63 transcript. Primary human foreskin keratinocytes were exposed to UV irradiation ($300\text{J}/\text{m}^2$), then harvested at times indicated. Total RNA was prepared, and RT-PCR on equal amounts of RNA was performed using primers specific for transactivating (TA) or truncated (ΔN) N-terminal domains of p63 (Yang et al., 1998). TA-p63 is not detectable in untreated (unt) keratinocytes, but expression is induced at 7hrs after UV treatment. ΔN -p63 appears to remain unchanged from untreated cells at all time points taken.

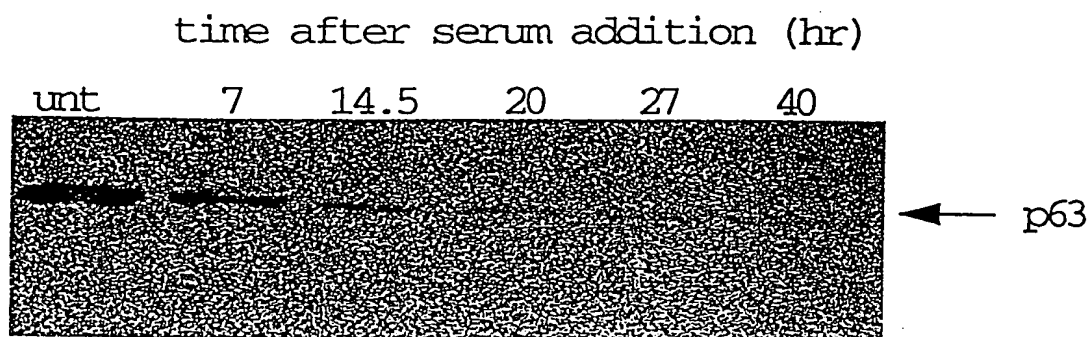


Figure22. p63 protein expression decreases upon keratinocyte differentiation. Primary human foreskin keratinocytes were treated with 10% fetal bovine serum to induce differentiation, and harvested at times indicated. Cells were lysed in RIPA buffer, boiled in Lammeli buffer, and proteins fractionated by SDS gel electrophoresis. Immunoblotting was performed using an anti-p63 mouse monoclonal antibody, 4A4, which recognizes all p63 isoforms identified to date. p63 protein levels in keratinocytes are seen to decrease progressively upon differentiation, as compared to untreated (unt) samples.

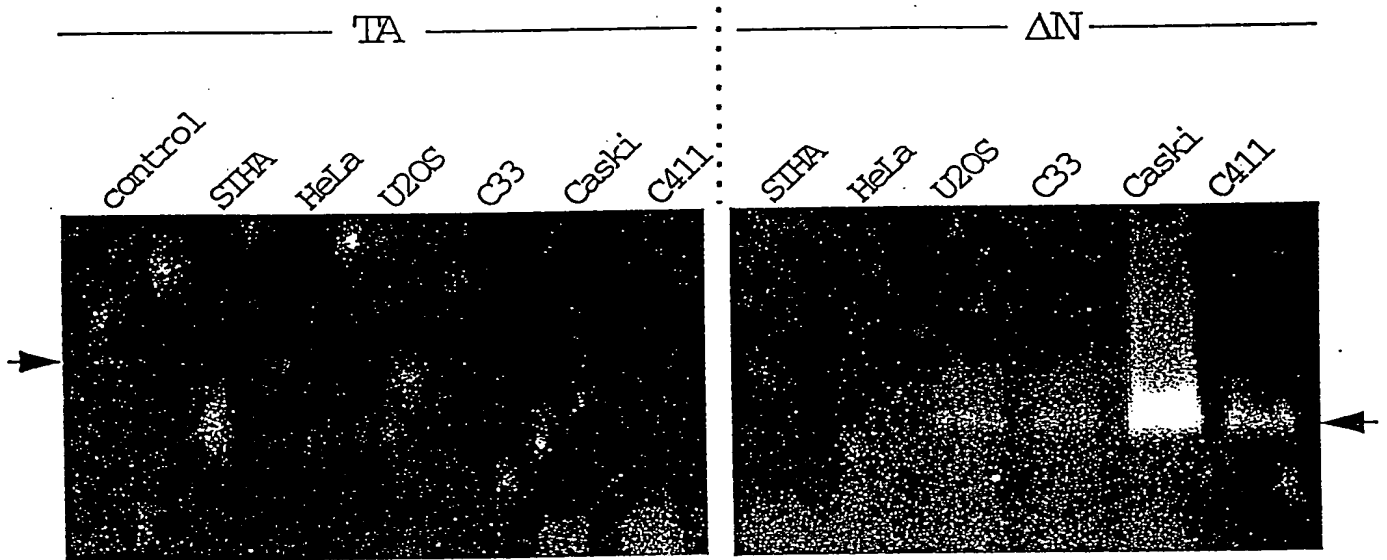


Figure 23. p63 RNA expression in human cancer cell lines. RT-PCR was performed on total RNA from several human tumor cell lines* using primers specific for transactivating (TA) or truncated (ΔN) N-terminal domains of p63 (see Figure 1), as indicated. Amongst these cell lines, only the ME180 control cell line showed a TA-p63 transcript. Instead, a majority showed expression of ΔN -p63, which has been demonstrated to act as a dominant negative protein towards both the tumor suppressor p53, as well as transactivating isotypes of p63.

*note: all are cervical carcinoma cell lines except U2OS, which is a human osteocarcinoma line.

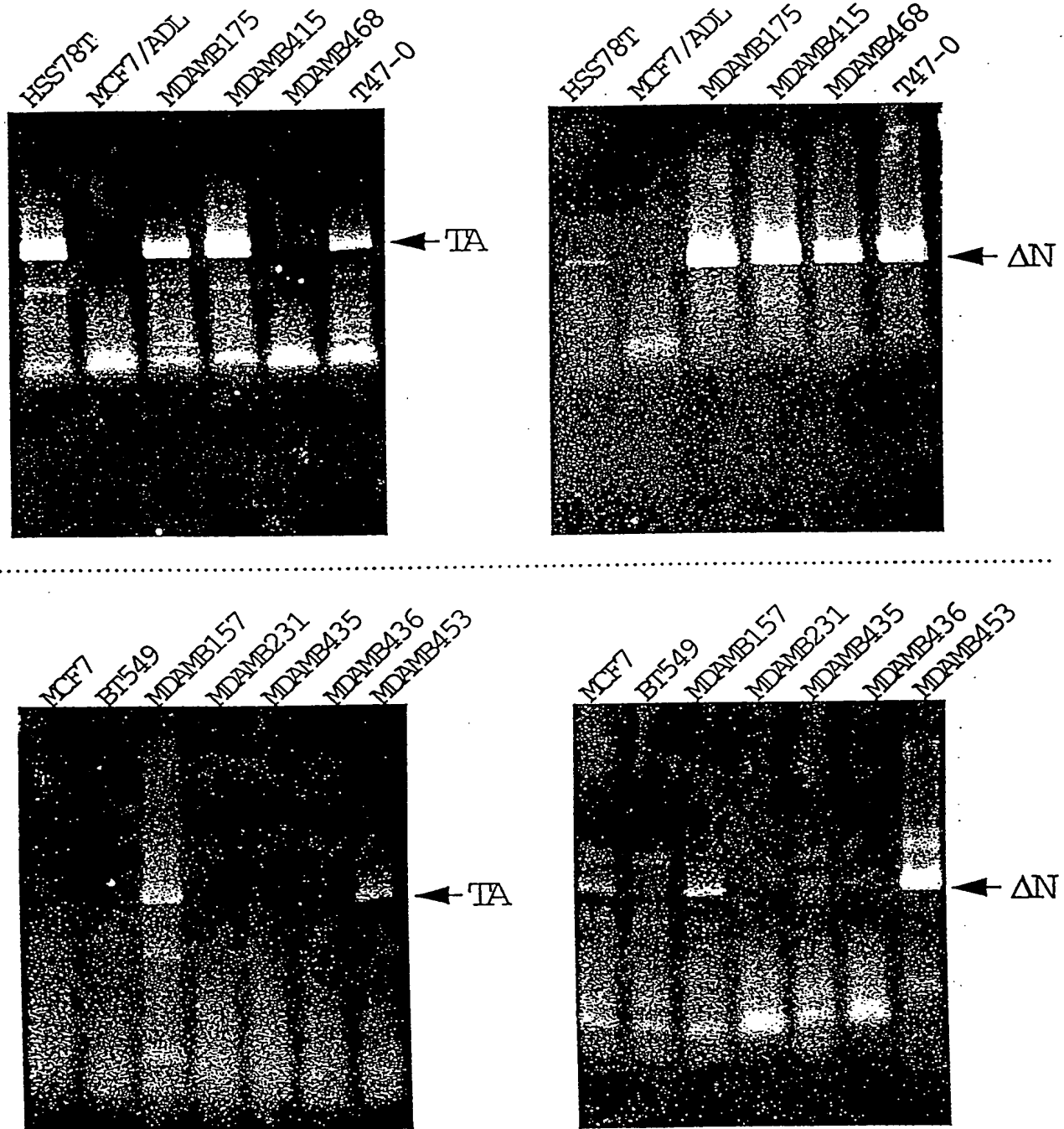
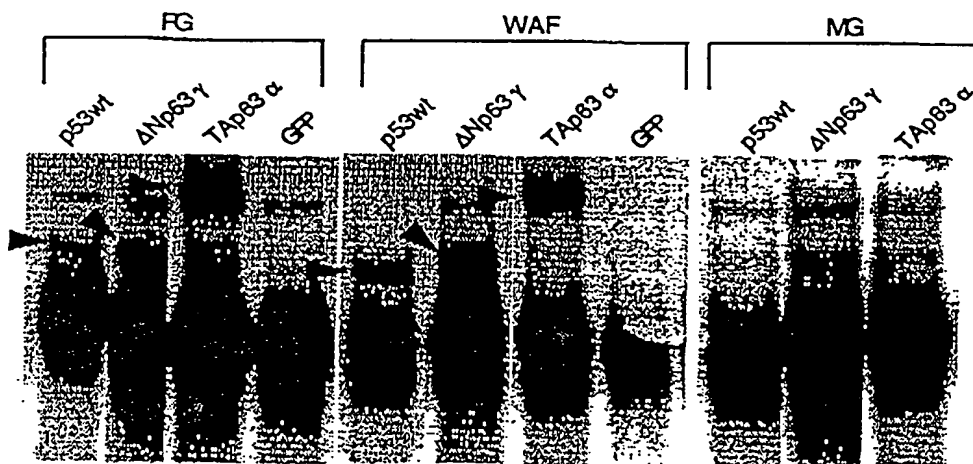


Figure24. p63 RNA expression in human breast cancer cell lines. RT-PCR was performed on total RNA from breast cancer cell lines using primers specific for transactivating (TA) or truncated (Δ N) N-terminal domains of p63 (see Figure 1), as indicated. p63 was detected in a majority of cell lines tested, with some specimens containing both transcript isotypes.



Electrophoretic mobility shift assays (EMSA) were performed using three separate, ^{32}P radiolabeled oligonucleotides: a minimal p53 binding sequence site (PG), a p53 binding site in the p21 promoter (WAF), and a mutant p53 binding site (MG, *Kern et al., 1992) with lysates of 293 human kidney cells transfected with p53, $\Delta\text{Np63}\gamma$, TAp63 α , and green fluorescent protein (GFP). p53, $\Delta\text{Np63}\gamma$, and TAp63 α lysates all yielded significant mobility shifts of both PG and WAF oligonucleotides (highlighted by arrows), while the GFP protein, included as negative control, failed to display a similar shift. None of the lysates showed a shift of the control, non-p53 binding oligonucleotide, MG, thus demonstrating the specificity of p53, $\Delta\text{Np63}\gamma$, and TAp63 α interactions with the p53-binding sites.

FIGURE 25

Relative Efficiency Plot TA and Delta

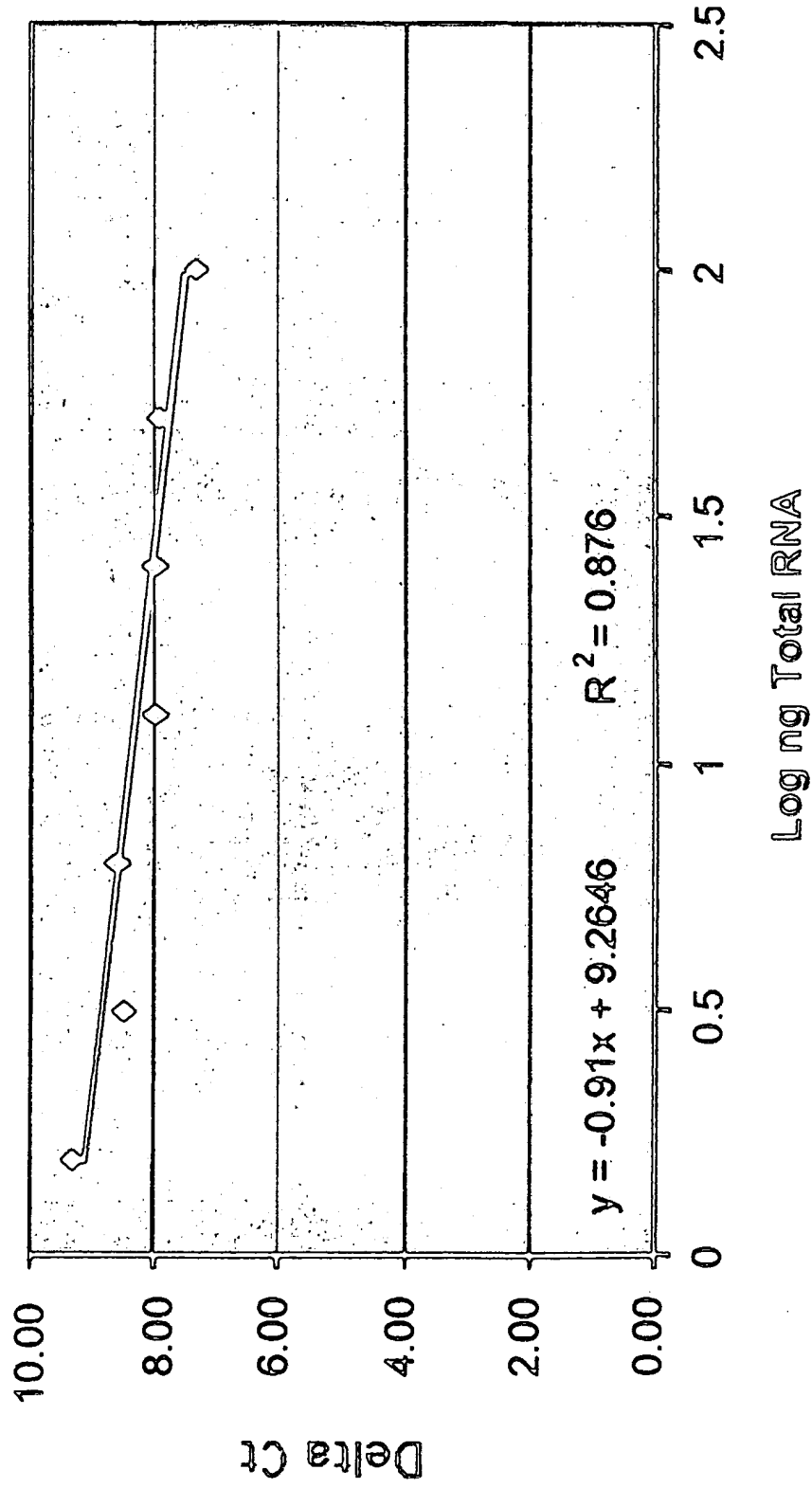


FIGURE 26

A. TAp63 amplification plot for PrEC cells

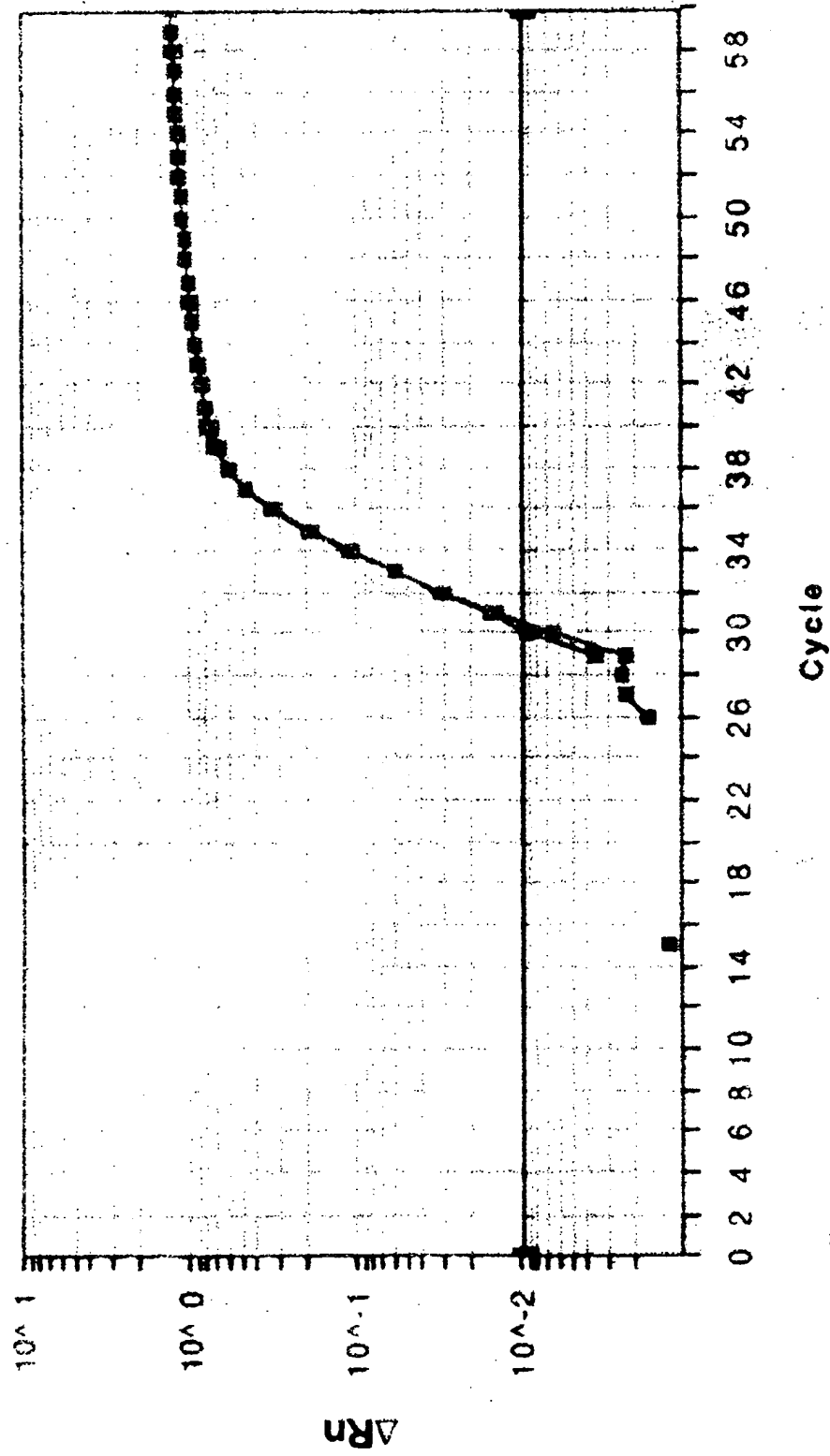


FIGURE 27(A)

B. TAp63 amplification plot for PC3 cells

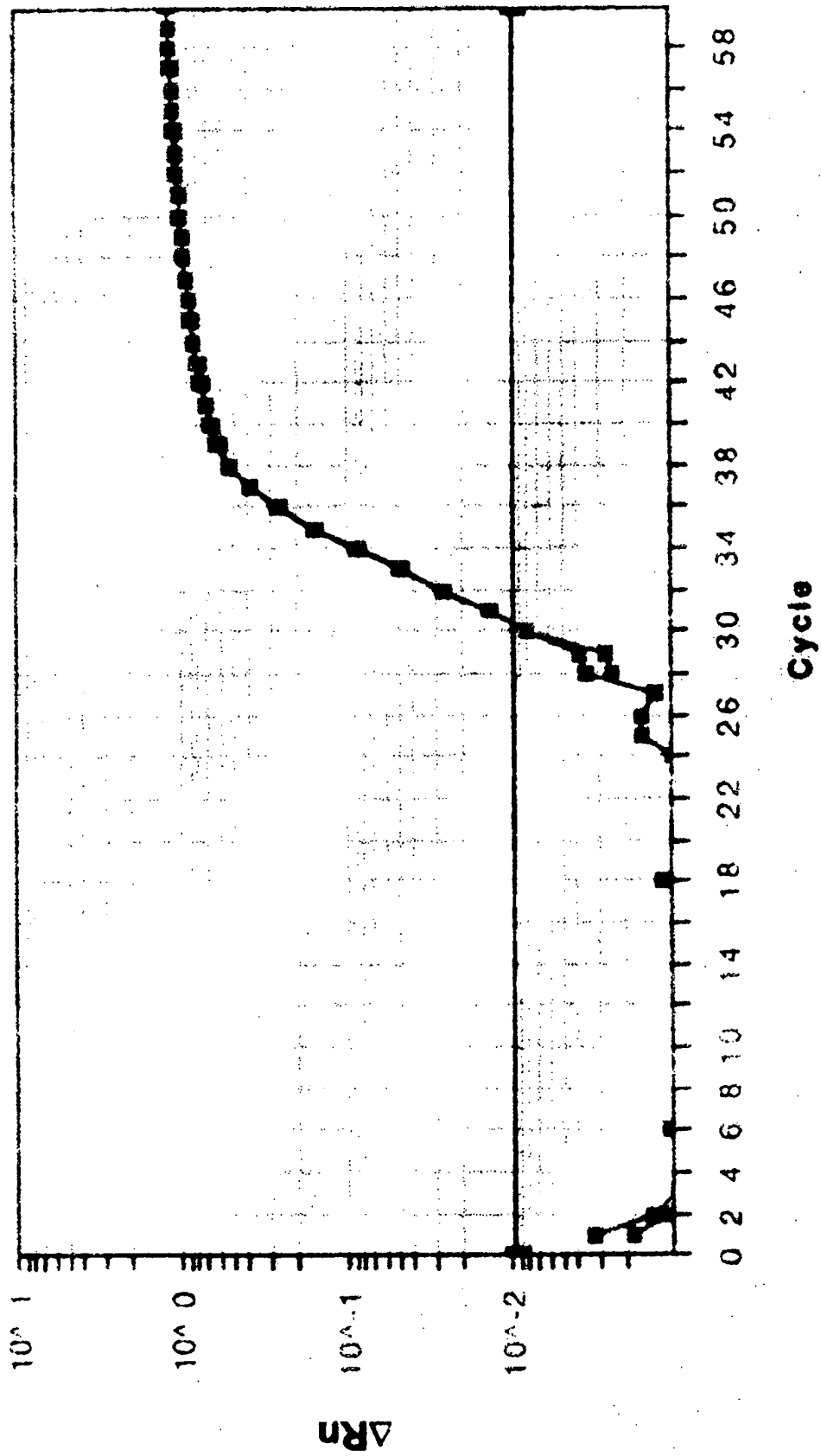


FIGURE 27 (B)

C. Δ Np63 amplification plot for PrEC cells

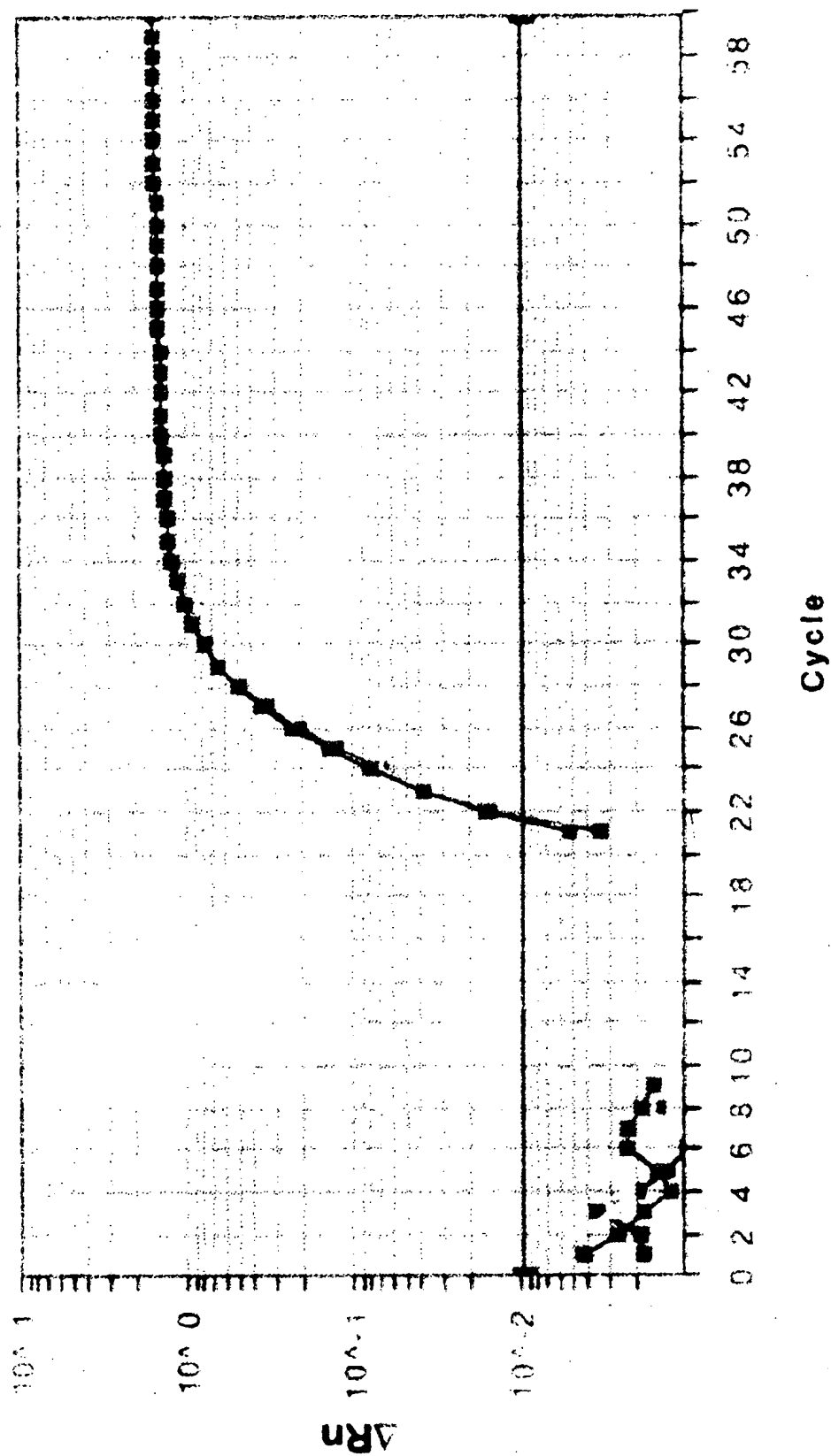


FIGURE 27(C)

D. $\Delta Np63$ amplification plot for PC3 cells

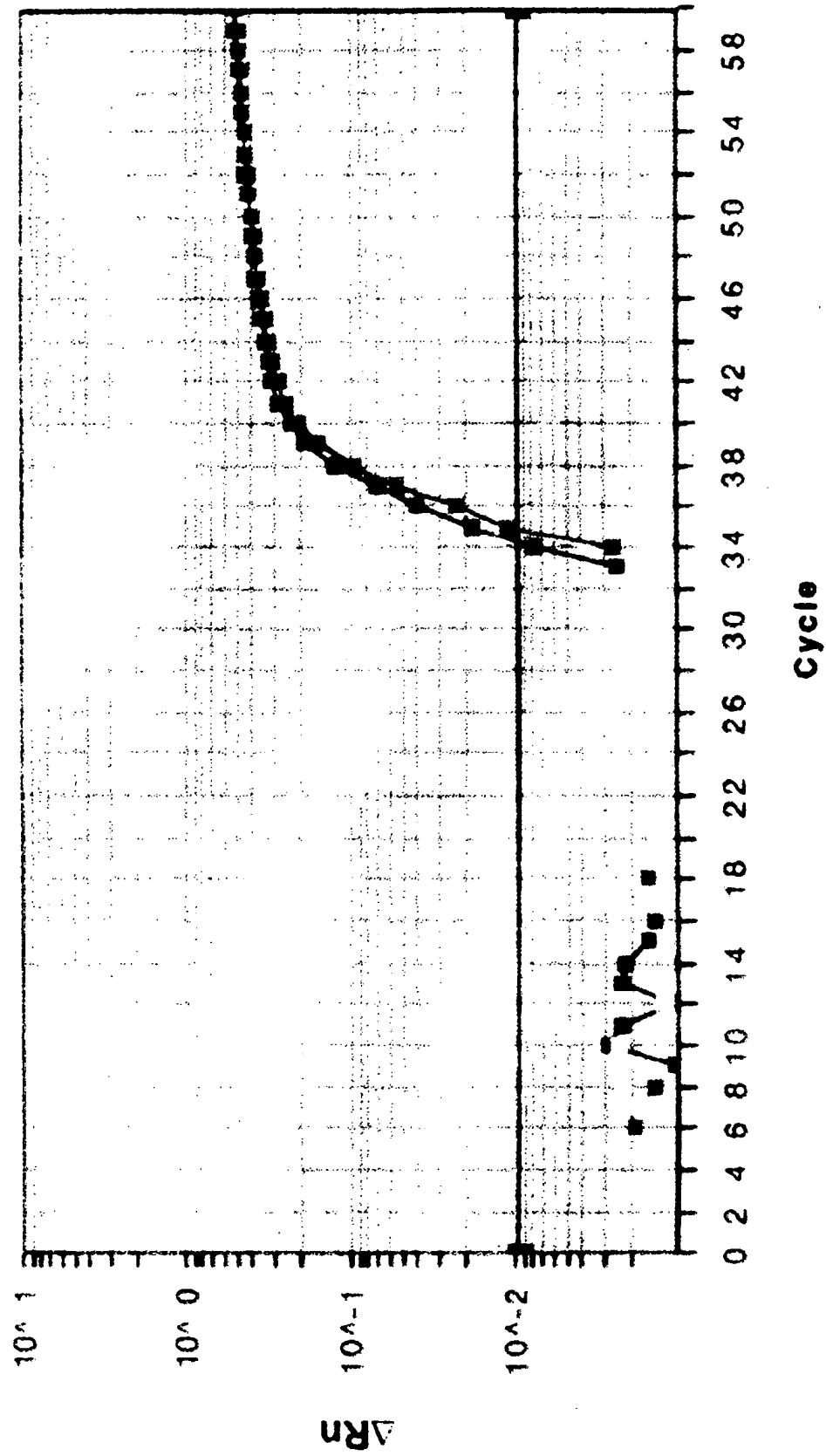
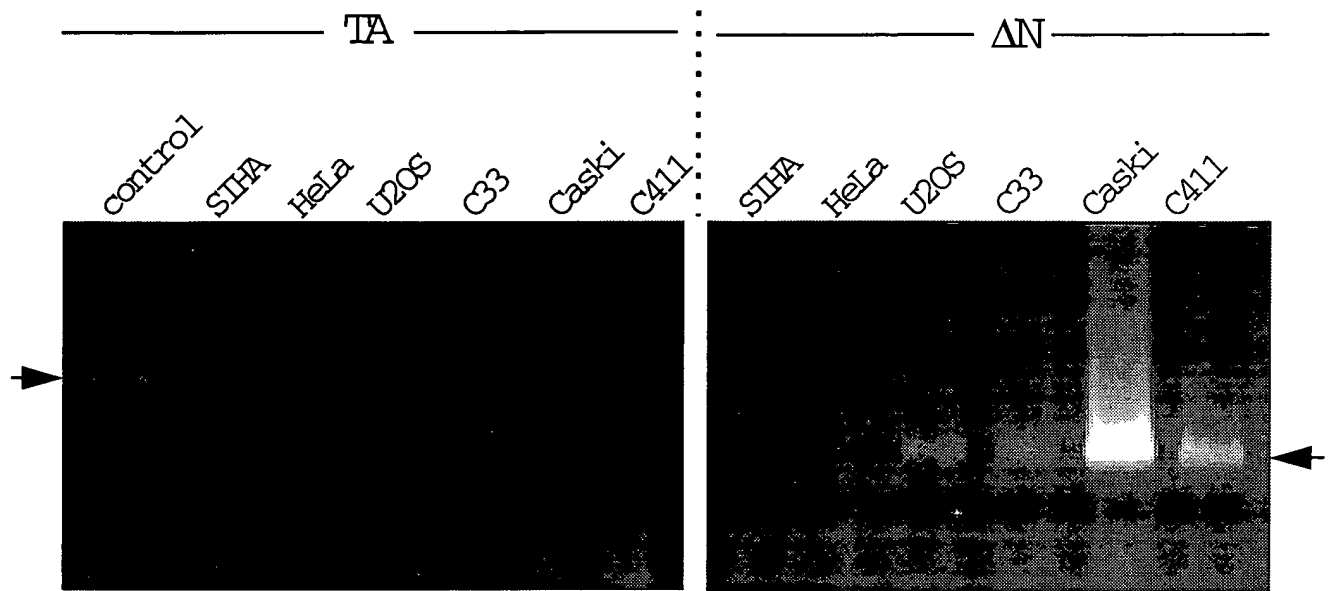


FIGURE 27(D)



p63 RNA expression in human cancer cell lines. RT-PCR was performed on total RNA from several human tumor cell lines* using primers specific for transactivating (TA) or truncated (ΔN) N-terminal domains of p63, as indicated. Amongst these cell lines, only the ME180 control cell line showed a TA-p63 transcript. Instead, a majority showed expression of ΔN -p63, which has been demonstrated to act as a dominant negative protein towards both the tumor suppressor p53, as well as transactivating isoforms of p63.

*note: all are cervical carcinoma cell lines except U2OS, which is a human osteocarcinoma line.

FIGURE 28

4A4 anti-p63

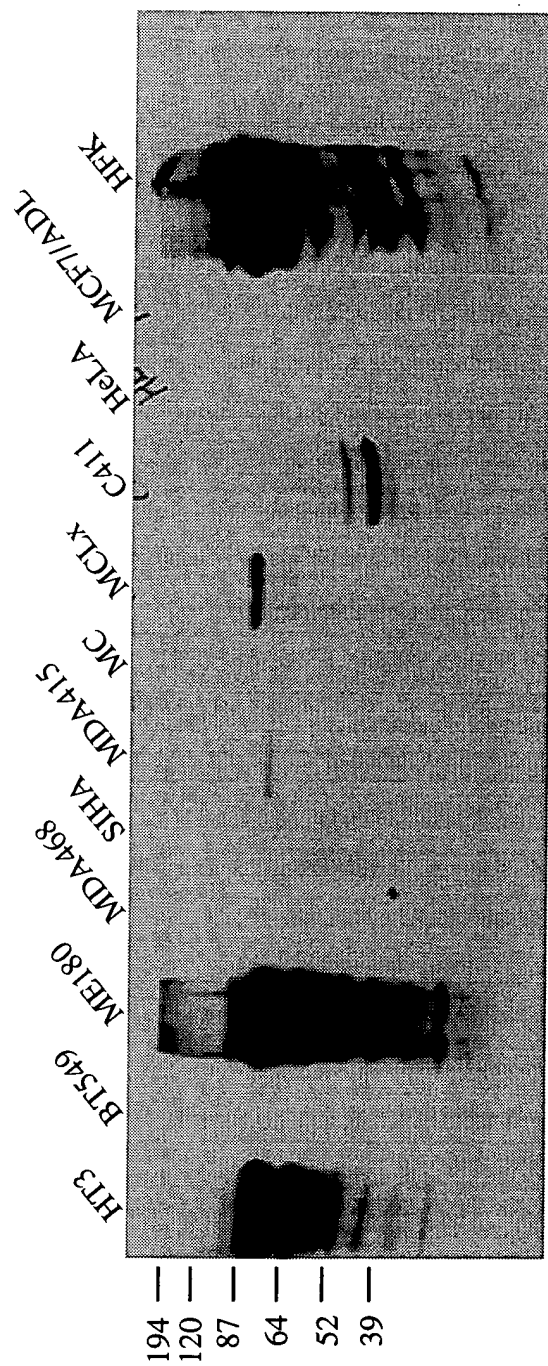


FIGURE 29